## **EAST Search History**

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	50	"2821544"	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/07/19 10:02
L2	10	"4310688"	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/07/19 10:32
L3	11	"4278809"	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/07/19 10:34
L4	10	"4310688"	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	.2007/07/19 11:35
L5	93	560/352	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/07/19 11:46
L6	176839	(meth)acryloyloxyalkyl isocyanate.clm.	US-PGPUB; USPAT; EPO; DERWENT	OR .	ON	2007/07/19 11:48
L7	74364	hydrolyzable chlorine.clm.	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/07/19 11:48
L8	9106	L6 and L7	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/07/19 11:49
L9	809045	epoxy compound.clm.	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/07/19 11:49
L10	7208	L8 and L9	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/07/19 11:49
LII	572866	temperature.clm.	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/07/19 11:50
L12	1323	L10 and L11	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/07/19 11:50

7/19/2007 11:54:22 AM Page 1

## **EAST Search History**

L13	16050	distillation.clm.	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/07/19 11:50
L14	32	L12 and L13	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/07/19 11:50
L15	445189	polymerization inhibitor.clm.	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/07/19 11:50
L16	14	L14 and L15	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/07/19 11:53
L17	1528	phenothiazine.clm.	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/07/19 11:53
L18	1	L14 and L17	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2007/07/19 11:53

7/19/2007 11:54:22 AM Page 2

FILE 'HOME' ENTERED AT 11:58:04 ON 19 JUL 2007

=> file reg COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 0.21 0.21

FULL ESTIMATED COST

FILE 'REGISTRY' ENTERED AT 11:58:15 ON 19 JUL 2007 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2007 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 18 JUL 2007 HIGHEST RN 942651-59-4 DICTIONARY FILE UPDATES: 18 JUL 2007 HIGHEST RN 942651-59-4

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TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

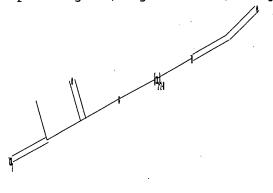
=> ....Testing the current file.... screen

ENTER SCREEN EXPRESSION OR (END):end

=> screen 970

L1 SCREEN CREATED

Uploading C:\Program Files\Stnexp\Queries\10566178.str



chain nodes :

1 2 3 4 5 6 7 8 9 10

chain bonds :

1-2 2-3 2-4 4-5 4-6 6-7 7-8 8-9 9-10

exact/norm bonds: 4-5 4-6 8-9 9-10

exact bonds :

1-2 2-3 2-4 6-7 7-8

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom.

L2 STRUCTURE UPLOADED

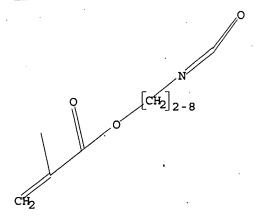
=> que L2 AND L1

L3 QUE L2 AND L1

=> d L2

L2 HAS NO ANSWERS

L2 ST



Structure attributes must be viewed using STN Express query preparation.

=> s 12 full

FULL SEARCH INITIATED 11:58:41 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 18161 TO ITERATE

100.0% PROCESSED 18161 ITERATIONS

RATIONS 6264 ANSWERS

SEARCH TIME: 00.00.01

L4 6264 SEA SSS FUL L2

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE TOTAL

ENTRY SESSION

FULL ESTIMATED COST 172.31

FILE 'CAPLUS' ENTERED AT 11:58:51 ON 19 JUL 2007 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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FILE COVERS 1907 - 19 Jul 2007 VOL 147 ISS 4
FILE LAST UPDATED: 18 Jul 2007 (20070718/ED)

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http://www.cas.org/infopolicy.html

=> s L4

L5 3683 L4

=> s L5/p

FIELD CODES CANNOT BE CHANGED HERE

You may have tried to apply a field code to a term that already has a field code. You can only add a field code to a term that has no field code appended to it.

=> s process

2459860 PROCESS

1670883 PROCESSES

L6 3666085 PROCESS

(PROCESS OR PROCESSES)

=> s L5 and L6

L7 452 L5 AND L6

=> s purification

339826 PURIFICATION

1094 PURIFICATIONS

340585 PURIFICATION

(PURIFICATION OR PURIFICATIONS)

308487 PURIFN

238 PURIFNS

308591 PURIFN

(PURIFN OR PURIFNS)

L8 500413 PURIFICATION

(PURIFICATION OR PURIFN)

=> s L7 and L8

L9 6 L7 AND L8

=> d L9 1-6 bib abs hitstr

L9 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2005:258049 CAPLUS

DN 142:464648

TI Tunable CO2 transport through mixed polyether membranes

AU Patel, Nikunj P.; Hunt, Marcus A.; Lin-Gibson, Sheng; Bencherif, Sidi; Spontak, Richard J.

CS Department of Chemical and Biomolecular Engineering, North Carolina State University, Raleigh, NC, 27695, USA

SO Journal of Membrane Science (2005), 251(1-2), 51-57 CODEN: JMESDO; ISSN: 0376-7388

PB Elsevier B.V.

DT Journal

LA English

Gas-separation membranes composed of polyethers such as poly(ethylene glycol) diacrylate (PEGda) or poly(propylene glycol) diacrylate (PPGda) exhibit high CO2 solubility selectivity, which makes them attractive for use in H2 and air purification In this work, we investigate the factors governing CO2 and H2 transport in mixed polyether matrixes. Addition of semicryst.

poly(ethylene oxide)s to amorphous PEGda lowers the net CO2 permeability and CO2/H2 selectivity due to crystal formation. Gas permeation through the amorphous fraction, however, remains unaffected, confirming the existence of a mol. weight limit below which the entire membrane participates in gas transport. The permeabilities of CO2 and H2, as well as their activation energy of permeation, in miscible PEGda/PPGda blends follow the linear rule of mixts. over the temperature range explored. Incorporation of amine moieties employed in liquid membranes into either the PEGda matrix during crosslinking or the PEG backbone generally reduces CO2/H2 selectivity but occasionally improves CO2 permeability.

IT 95615-67-1

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(tunable CO2 transport through mixed polyether membranes)

RN 95615-67-1 CAPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -[[[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]amino]carbonyl]- $\omega$ -[[[[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]amino]carbonyl]oxy]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RE CNT 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L9 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN
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AN 2005:120877 CAPLUS

DN 142:198496

Process for preparing high-purity (meth)acryloyloxyalkyl isocyanates by stirring with an epoxide and an amine and subjecting the mixture to distillation in the presence of a polymerization inhibitor

IN Morinaka, Katsutoshi; Hoshi, Kazuyoshi

PA Showa Denko K.K., Japan

SO PCT Int. Appl., 36 pp. CODEN: PIXXD2

DT Patent

LA English

FAN CNT 1

FAN	.CNT I															
	PATENT 1	NO.		KINI	וֹ, כ	DATE		7	APPL	ICAT:	ION I	NO.		D	ATE	
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ΡI	WO 2005	012237		A1	:	2005	0210	1	WO 2	004-	JP11	019		20	0040	727
	₩:	AE, AG,	AL,	AM,	AT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BW,	BY,	ΒZ,	ÇA,	CH,
		CN, CO,														
		GE, GH,														
		LR, LS,	LT,	LU,	LV,	ΜA,	MD,	MG,	MK,	MN,	MW,	MX,	ΜZ,	NA,	NI,	NO,
		NZ, OM,														ТJ,
		TM, TN,	TR,	TT,	TZ,	UA,	UG,	US,	UΖ,	VC,	VN,	ΥU,	ZA,	ZM,	ZW	
	RW:	BW, GH,														AM,
		AZ, BY,	KG,	KZ,	MD,	RU,	ΤJ,	TM,	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,
		EE, ES,	FI,	FR,	GB,	GR,	HU,	ΊΕ,	ΙT,	LU,	MC,	NL,	PL,	PT,	RO,	SE,
		SI. SK.														

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SN, TD, TG
     EP 1660438
                                20060531
                                            EP 2004-748173
                                                                    20040727
                          Α1
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             IE, SI, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR
                                            CN 2004-80021528
                                20060906
                                                                    20040727
     CN 1829686
                          Α
                          В
                                            TW 2004-93122764
                                                                    20040729
     TW 249523
                                20060221
     JP 2005060393
                          Α
                                20050310
                                            JP 2004-225656
                                                                    20040802
     US 2006241319
                          A1
                                20061026
                                            US 2006-566178
                                                                    20060127
PRAI JP 2003-283695
                          A
                                20030731
     US 2003-493455P
                          ₽
                                20030808
     WO 2004-JP11019
                          W
                                20040727
     A process for preparing high-purity (meth)acryloyloxyalkyl
AB
     isocyanates (e.g., methacryloyloxyethyl isocyanate), having a very small
     hydrolyzable chlorine content, is described in which the
     (meth)acryloyloxyalkyl isocyanate containing a hydrolyzable chlorine is
     subjected to a mixing treatment with an epoxy compound and an amine (e.g.,
     2-ethyl-4-methylimidazole) at 110-160° to prepare a mixture and preparing
     a high-purity (meth)acryloyloxyalkyl isocyanate from the resulting mixture
     by subjecting it to distillation in the presence of a polymerization inhibitor
(e.g.,
     phenothiazine).
     30674-80-7P
IT
     RL: PEP (Physical, engineering or chemical process); PUR (Purification or
     recovery); PYP (Physical process); TEM (Technical or engineered material
     use); PREP (Preparation); PROC (Process); USES (Uses)
        (process for preparing high-purity (meth)acryloyloxyalkyl
        isocyanates by stirring with epoxide and amine and subjecting mixture to
        distillation in presence of polymerization inhibitor)
     30674-80-7 CAPLUS
RN
     2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester (CA INDEX NAME)
CN
 H<sub>2</sub>C
     Q
Me-C-C-O-CH2-CH2-NCO
              THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 5
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
     ANSWER 3 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN
L9
     2005:120876 CAPLUS
AN
DN
     142:198495
     Process for the stabilization of (meth)acryloyloxyalkyl
ΤI
     isocyanates by the removal of hydrolyzable chlorine using carbon dioxide
     Morinaka, Katsutoshi; Ishikawa, Toshiaki; Hoshi, Kazuyoshi
IN
     Showa Denko K.K., Japan
PA
     PCT Int. Appl., 30 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LA
     English
FAN.CNT 1
                                            APPLICATION NO.
                                                                    DATE
                         KIND
                                DATE
     PATENT NO.
                                            ______
                                 ------
                         - - - -
                                                                    20040727
                                            WO 2004-JP11017
     WO 2005012236
                          A1
                                20050210
ΡI
            AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK,
             LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO,
             NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ,
             TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
             AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
             EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
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SN, TD, TG
     EP 1654222
                                20060510
                                           EP 2004-748172
                                                                    20040727
                          A1
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR
                                            CN 2004-80021774
                                                                    20040727
                                20060906
     CN 1829685
                          Α
                                            JP 2004-225655
                                                                    20040802
     JP 2005060392
                          A
                                20050310
     US 2006229464
                                            US 2006-566184
                          A1
                                20061012
                                                                    20060127
PRAI JP 2003-283694
                          Α
                                20030731
     US 2003-493459P
                          P
                                20030808
     WO 2004-JP11017
                          W
                                20040727
os
     MARPAT 142:198495
AB
     (meth)acryloyloxyalkyl isocyanates (e.g., methacryloyloxyethyl
     isocyanate), which are prepared by the reaction of phosgene (no data),
     having a small hydrolyzable chlorine content are stabilized by decreasing
     the amount of hydrolyzable chlorine through purification in a
     process in which an acidic gas (e.g., carbon dioxide) is forcedly
     dissolved in the (meth)acryloyloxyalkyl isocyanate solution and the storage
     stability of the (meth)acryloyloxyalkyl isocyanate is improved.
IT
     30674-80-7P
     RL: PEP (Physical, engineering or chemical process); PNU (Preparation,
     unclassified); PUR (Purification or recovery); PYP (Physical process);
     PREP (Preparation); PROC (Process)
        (process for the stabilization of (meth)acryloyloxyalkyl
        isocyanates by the removal of hydrolyzable chlorine using carbon
        dioxide)
RN
     30674-80-7 CAPLUS
     2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester (CA INDEX NAME)
CN
 H<sub>2</sub>C O
Me^-C^-C^-O^-CH_2^-CH_2^-NCO
RE.CNT 7
              THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
     ANSWER 4 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN
L9
     2004:451362 CAPLUS
ΑN
     141:9146
DN
     Chromatographic separation process
ΤI
     Kolesinski, Henry S.; Kremsky, Jonathan N.
ΙN
PΑ
     U.S. Pat. Appl. Publ., 4 pp.
SO
     CODEN: USXXCO
DT
     Patent
LΑ
     English
FAN.CNT 2
                                            APPLICATION NO.
                         KIND
                                DATE
     PATENT NO.
                                            --------
                                _____
                         _ _ _ _
                                            US 2003-721132
                                                                    20031125
                                20040603
PI
     US 2004104174
                          A1
                                            WO 2003-US37875
                                                                    20031125
                          A1
                                20040610
     WO 2004047947
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
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             ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,
             TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                                20040610 WO 2003-US38598
                                                                    20031125
     WO 2004047948
                         A1
             AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
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GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG AU 2003-298894 20031125 A1 20040618 AU 2003298894 AU 2003-299566 20031125 A1 20040618 AU 2003299566 P PRAI US 2002-429228P 20021126 W 20031125 WO 2003-US37875 WO 2003-US38598 W 20031125 There are described processes for the separation of components from a

AB There are described processes for the separation of components from a fermentation product or other biomass product. The fluid mixture is passed through a separation column having at least one capture element having flow channels of .apprx.50  $\mu$  or greater and which includes chemical active capture material capable of capturing a desired component from the mixture The separation column may include a plurality of the chemical active capture elements.

IT 102223-93-8P

RL: PEP (Physical, engineering or chemical process); PUR (Purification or recovery); PYP (Physical process); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)

(chromatog. stationary phase and separation process)

RN 102223-93-8 CAPLUS

CN Pyridinium, 1-[[[[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]amino]carbonyl]a mino]-, inner salt (9CI) (CA INDEX NAME)

$$\begin{array}{c|c}
O & CH_2 \\
N - C - NH - CH_2 - CH_2 - O - C - C - Me.
\end{array}$$

$$^{\text{H}_2\text{C}}_{\parallel}$$
 0  $^{\text{H}_2\text{C}}_{\parallel}$   $\parallel$   $\parallel$   $^{\text{M}_2\text{C}}_{\parallel}$   $^{\text{C}}_{\parallel}$   $^{\text{C}}_{\parallel}$ 

RN 697285-03-3 CAPLUS

CN Pyridinium, 1-[[[[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]amino]carbonyl]a mino]-, inner salt, polymer with 3-sulfopropyl 2-methyl-2-propenoate potassium salt (9CI) (CA INDEX NAME)

CRN 102223-93-8 CMF C12 H15 N3 O3

$$\begin{array}{c|c} O & CH_2 \\ N - C - NH - CH_2 - CH_2 - O - C - C - Me \\ \hline \\ N^+ \end{array}$$

CM 2

CRN 31098-21-2 CMF C7 H12 O5 S . K

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ & || & || \\ & \text{HO}_3 \text{S} - (\text{CH}_2)_3 - \text{O} - \text{C} - \text{C} - \text{Me} \end{array}$$

K

COPYRIGHT 2007 ACS on STN ANSWER 5 OF 6 CAPLUS L9 1999:530982 CAPLUS AN DN 131:158089 Method for purification of isocyanatoalkyl (meth)acrylate ΤI substantially free from chlorine by distillation and dechlorination using epoxy compound and amine Misu, Naoaki; Matsuhira, Shinya; Kihara, Muneyo; Ohnishi, Yutaka IN Showa Denko K. K., Japan PA Jpn. Kokai Tokkyo Koho, 7 pp. SO CODEN: JKXXAF DT Patent LΑ Japanese FAN.CNT 1 APPLICATION NO. DATE PATENT NO. KIND DATE ----19990824 JP 1998-25493 19980206 ΡI JP 11228523 Α 19990806 CA 1999-2261324 19990205 CA 2261324 A1 EP 1999-102318 19990205 EP 936214 Α2 19990818 19990825 EP 936214 A3 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO US 1999-245707 19990208 20010612 US 6245935 В1 19980206 PRAI JP 1998-25493 Α US 1998-101527P 19980923 Ρ Isocyanatoalkyl (meta)acrylates substantially free from hydrolytic ABchlorine are prepared by purification which involves treatment of (A) isocyanatoalkyl acrylate containing isocyanatoalkyl 2-chloropropionate or (B)

isocyanatoalkyl methacrylate containing isocyanatoalkyl 2-methyl-2-

isocyanatoalkyl 2-chloropropionate or 2-methyl-2-chloropropionate is no longer present. The purified isocyanatoalkyl (meta)acrylate is useful as a raw material for photoresists (active ray-curable resins) suitable for electronic or elec. parts which is not compatible with chlorine. Thus,

chloropropionate with an epoxy-containing compound and amine/or imidazole until

2-isocyanatoethyl methacrylate (I) containing 381 ppm hydrolytic chlorine 300, epoxidized fatty plasticizer (mol. weight .apprx.100 and iodine value 7) containing 6.1% oxirane oxygen 1.7, 2,6-di-tert-butyl-4-methylphenol 0.3, and triethylenetetramine 0.11 g were stirred in a glass reaction vessel at 60° and .apprx.1.3 kPa and distilled at 85° to give 220 g I containing 29 ppm hydrolytic chlorine. Phenothiazine (0.15 g) was added the purified I (150 g) and the resulting mixture was distilled at 70° (column bottom temperature 81°) and .apprx.0.7 kPa with a series of two glass columns packed with Dixon packings to give 53 g I in which no hydrolytic chlorine was detected.

IT 30674-80-7P, 2-Isocyanatoethyl methacrylate

RL: PUR (Purification or recovery); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(purification of isocyanatoalkyl (meth)acrylate as monomers substantially free from chlorine by distillation and dechlorination using epoxy compound and amine)

RN 30674-80-7 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester (CA INDEX NAME)

L9 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1989:104990 CAPLUS

DN 110:104990

TI Epoxy resin-based photopolymers

IN Ahne, Hellmut; Plundrich, Winfried

PA Siemens A.-G., Fed. Rep. Ger.

SO Eur. Pat. Appl., 10 pp.

CODEN: EPXXDW

DT Patent

LA German

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 259726	A2	19880316	EP 1987-112571	19870828
EP 259726	A3	19890510		
R: AT, BE,	CH, DE, FR	, GB, IT,	LI, LU, NL, SE	÷
JP 63075023	Α	19880405	JP 1987-223834	19870907
DK 8704720	· A	19880312	DK 1987-4720	19870910
FI 8703943	A	19880312	FI 1987-3943	19870911
PRAI DE 1986-3630960	A	19860911		

AB Photopolymers based upon epoxides, which are prepared economically without using purification operations, consist of an addition product of an olefinically unsatd. monoisocyanate with a hydroxy group-containing epoxide. The polymers are useful in the wiring and circuit sector as protective and insulating layers. Thus, a solution containing an Araldite GT 6099-isocyanatoethyl methacrylate reaction product (prepared by the reaction of the 2 components in cyclohexanone in the presence of dibutyltin dilaurate), dichloroacetophenone, Michler's ketone, and 2-isopropylimidazole was coated on an Al substrate, dried, crosslinked by exposure to a Hg vapor lamp, and hardened at 150° for 30 min.

30674-80-7DP, Isocyanatoethyl methacrylate, reaction products with araldite GT 6099

RL: PREP (Preparation)

(preparation of, for photocurable coating and photoimaging applications)

RN 30674-80-7 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester (CA INDEX NAME)

```
Me-C-C-O-CH2-CH2-NCO
=> s polymerization inhibitor
        348613 POLYMERIZATION
          4250 POLYMERIZATIONS
        349264 POLYMERIZATION
                 (POLYMERIZATION OR POLYMERIZATIONS)
        352678 POLYMN
          9344 POLYMNS
        353902 POLYMN
                 (POLYMN OR POLYMNS)
        479240 POLYMERIZATION
                 (POLYMERIZATION OR POLYMN)
        545252 INHIBITOR
        549195 INHIBITORS
        856776 INHIBITOR
                 (INHIBITOR OR INHIBITORS)
          8157 POLYMERIZATION INHIBITOR
L10
                 (POLYMERIZATION (W) INHIBITOR)
=> s L5 and L10
L11
            32 L5 AND L10
=> s phenothiazine
         18189 PHENOTHIAZINE
         . 4268 PHENOTHIAZINES
L12
         19179 PHENOTHIAZINE
                  (PHENOTHIAZINE OR PHENOTHIAZINES)
=> s L5 and L12
            25 L5 AND L12
=> d L13 1-25 bib abs hitstr
L13 ANSWER 1 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
     2005:1311425 CAPLUS
ΑN
DN
     144:40848
     Preparation of molecularly imprinted polymers compounds having an affinity
     for binding phosphate for therapeutic use
     Ross, Edward Allan; Batich, Christopher D.
IN
PA
     USA
     U.S. Pat. Appl. Publ., 14 pp.
SO
     CODEN: USXXCO
DT
     Patent
T.A
     English
FAN.CNT 1
                                             APPLICATION NO.
                                                                     DATE
                          KIND
                                 DATE
     PATENT NO.
                          ----
                                                                     20050609
     US 2005276781
                          A1
                                 20051215
                                             US 2005-148929
PΤ
PRAI US 2004-578693P
                          Ρ
                                 20040609
```

H<sub>2</sub>C O

Methods for synthesizing molecularly imprinted polymers (MIP) having an affinity for dietary phosphates, resulting polymers, pharmaceutical compns. and modes of administration are disclosed. The MIP compds. are useful for binding excess dietary phosphates in a patient in need thereof. Thus, MIP compound was prepared containing a polar, active monomer [2-(methacryloyloxy)ethyl]trimethylammonium chloride and two less polar, relatively inactive monomers hydroxyethyl methacrylate and Me methacrylate. Phosphate uptake by the MIP compound was evaluated by atomic absorption using a sodium chloride and carbonate solution of 20mM potassium

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dihydrogen phosphate at pH 7.
     30674-80-7, 2-Isocyanatoethyl methacrylate
IT
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (preparation of molecularly imprinted polymers compds. having affinity for
        binding phosphate or phosphate-containing mol.)
RN
     30674-80-7 CAPLUS
     2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester (CA INDEX NAME)
CN
 H_2C
      Ö
Me^-C^-C^-O^-CH_2^-CH_2^-NCO
    ANSWER 2 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
L13
AN
     2005:1168877 CAPLUS
DN
     143:451780
     Processable molecularly imprinted polymers
     Southard, Glen E.; Murray, George M.
     The Johns Hopkins University, USA
PA
     PCT Int. Appl., 41 pp.
SO
     CODEN: PIXXD2
DT
     Patent
     English
LA
FAN.CNT 1
                                                                    DATE
                                            APPLICATION NO.
     PATENT NO.
                         KIND
                                DATE
                                            _____
                                                                    _____
                         ----
                                            WO 2004-US32575
                                                                    20041004
                         A1
                                20051103
     WO 2005103655
PΙ
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
             NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
             TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
             AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
             EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
             SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
             SN, TD, TG
                                20051103
                                            AU 2004-318862
                                                                    20041004
                          A1
     AU 2004318862
                                            CA 2004-2560384
                                                                    20041004
                          A1
                                20051103
     CA 2560384
                                20061220
                                            EP 2004-821372
                          Αl
     EP 1733211
             AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IT, LI, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR
                                                                    20041004
                                            CN 2004-80042696
                                20070523
     CN 1969181
                          Α
                                20040408
PRAI US 2004-560668P
                          Р
                                20041004
     WO 2004-US32575
                          W
OS
     MARPAT 143:451780
     A process is provided herein for preparing molecularly imprinted polymers for
AΒ
     detecting a target analyte by Reversible Addition Fragmentation Chain
     Transfer (RAFT). The process includes providing a complex with the
     following formula L3M wherein L is a \beta-diketone ligand containing a chain
     transfer moiety and L3M can be the same or different ligands, and M is a
     lanthanide element; reacting the complex with the target analyte to
     provide an adduct containing the target analyte; co-polymerizing the adduct
with a
     monomer and crosslinking agent to provide a polymer; and, removing the
     target analyte from the polymer to provide the molecularly imprinted
     polymer.
     30674-80-7, 2-Isocyanatoethyl methacrylate
IT
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (crosslinking agent; preparation of molecularly imprinted polymers for
        detection of a target analyte by reversible addition fragmentation chain
        transfer)
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```
30674-80-7 CAPLUS
     2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester (CA INDEX NAME)
 H<sub>2</sub>C
     0
Me-C-C-O-CH2-CH2-NCO
              THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 5
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
    ANSWER 3 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
L13
     2005:120877 CAPLUS
ΑN
DN
     142:198496
     Process for preparing high-purity (meth)acryloyloxyalkyl isocyanates by
TI
     stirring with an epoxide and an amine and subjecting the mixture to
     distillation in the presence of a polymerization inhibitor
     Morinaka, Katsutoshi; Hoshi, Kazuyoshi
IN
PA
     Showa Denko K.K., Japan
     PCT Int. Appl., 36 pp.
SO
     CODEN: PIXXD2
DT
     Patent
     English
LA
FAN.CNT 1
                                            APPLICATION NO.
                                                                    DATE
                         KIND
                                DATE
     PATENT NO.
                                            ______
                         _ _ _ _
                                                                    20040727
                                20050210
                                            WO 2004-JP11019
PΙ
     WO 2005012237
                          A1
            AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK,
             LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO,
             NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ,
             TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
             AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
             EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
             SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
             SN, TD, TG
                                20060531
                                            EP 2004-748173
                                                                    20040727
     EP 1660438
                          A1
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AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR
                                 20060906
                                             CN 2004-80021528
                                                                     20040727
     CN 1829686
                          Α
                                             TW 2004-93122764
                                                                     20040729
     TW 249523
                          В
                                 20060221
                                             JP 2004-225656
                                                                     20040802
     JP 2005060393
                          Α
                                 20050310
                                             US 2006-566178
                                                                     20060127
     US 2006241319
                                 20061026
                          A1
PRAI JP 2003-283695
                                 20030731
                          Α
     US 2003-493455P
                          Ρ
                                 20030808
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20040727

W

AB A process for preparing high-purity (meth)acryloyloxyalkyl isocyanates (e.g., methacryloyloxyethyl isocyanate), having a very small hydrolyzable chlorine content, is described in which the (meth)acryloyloxyalkyl isocyanate containing a hydrolyzable chlorine is subjected to a mixing treatment with an epoxy compound and an amine (e.g., 2-ethyl-4-methylimidazole) at 110-160° to prepare a mixture and preparing a high-purity (meth)acryloyloxyalkyl isocyanate from the resulting mixture by subjecting it to distillation in the presence of a polymerization inhibitor

(e.g.,
 phenothiazine).

WO 2004-JP11019

IT 30674-80-7P

RL: PEP (Physical, engineering or chemical process); PUR (Purification or recovery); PYP (Physical process); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)

(process for preparing high-purity (meth)acryloyloxyalkyl isocyanates by stirring with epoxide and amine and subjecting mixture to distillation in

```
30674-80-7 CAPLUS
RN
     2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester (CA INDEX NAME)
CN
 H<sub>2</sub>C O
Me- C- C- O- CH2- CH2- NCO
              THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 5
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
    ANSWER 4 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
L13
     2002:107601 CAPLUS
AN
DN
     136:147449
     Replicable ligand binding probe array
TΙ
     Guire, Patrick E.; Swanson, Melvin J.
IN
     Surmodics, Inc., USA
PA
     PCT Int. Appl., 72 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LΑ
     English
FAN.CNT 1
                                              APPLICATION NO.
                                                                      DATE
                          KIND
                                 DATE
     PATENT NO.
                                             -----
                                                                      _____
                          ____
                                 _____
                                              WO 2001-US21607
                                                                      20010709
                                 20020207
                          A2
PΙ
     WO 2002010450
                          A3
                                 20030731
     WO 2002010450
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
             RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ,
             VN, YU, ZA, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG,
             KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN,
              GW, ML, MR, NE, SN, TD, TG
                                              US 1999-240466
                                                                      19990129
                                 20030204
     US 6514768
                           В1
                                              CA 2000-2361163
                                                                      20000127
                                 20000803
                           Al
     CA 2361163
                                              WO 2000-US1944
                                                                      20000127
                                 20000803
     WO 2000044939
                           A1
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         RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
              PT, SE
                                                                      20000127
                                              EP 2000-905741
                                  20011024
     EP 1147222
                           A1
                                  20061122
                           B1
     EP 1147222
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
              IE, SI, LT, LV, FI, RO, CY
                                              JP 2000-596179
                                                                      20000127
                                  20021022
     JP 2002535013
                           Т
                                                                      20000127
                                              AU 2000-27378
                                  20040902
     AU-776309
                           B2
                                                                      20000127
                                              AT 2000-905741
                                  20061215
                           T
     AT 346166
                                              CA 2001-2417903
                                                                      20010709
                                  20020207
     CA 2417903
                           A1
                                                                      20010709
                                             EP 2001-957111
                                  20031008
                           A2
     EP 1349956
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
                                              JP 2002-516366
                                                                      20010709
                                  20040325
                           Т
     JP 2004509323
                                                                      20010727
                                  20020314
                                              MX 2001-PA7638
     MX 2001PA07.638
                           Α
                                              US 2003-346691
                                                                      20030115
                           A1
                                  20030807
     US 2003148360
                                                                      20030131
                          Α
                                  20030609
                                              MX 2003-PA962
     MX 2003PA00962
                                                                      20030203
                          A1
                                              US 2003-357679
                                  20030911
     US 2003170914
                                  20000802
                          Α
PRAI US 2000-631139
                                 19990129
                          Α
     US 1999-240466
                               20000127
                           W
     WO 2000-US1944
                          W
                                20010709
     WO 2001-US21607
     The invention concerns a system for producing substantially identical
AB
```

presence of polymerization inhibitor)

specific binding ligand probe arrays, for instance, by preparing and replicating an original master array and/or by providing a reusable assay array that is capable of being regenerated. DIn one embodiment the system includes the preparation and use of (a) a master array surface having address ligands immobilized thereon, (b) a multi-ligand conjugate having a binding domain complementary to an address ligand, a binding domain complementary to a target ligand, and a third ligand for use in transferring the conjugates into or onto the surface of assay array, which can be used with or upon disassocn. of the address and its complementary ligands.

IT 30674-80-7

RL: RCT (Reactant); RACT (Reactant or reagent)
 (replicable ligand binding probe array)

RN 30674-80-7 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester (CA INDEX NAME)

IT 130764-57-7P

RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses) (spaced epoxide monomer; replicable ligand binding probe array)

RN 130764-57-7 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-[[(oxiranylmethoxy)carbonyl]amino]ethyl ester (9CI) (CA INDEX NAME)

L13 ANSWER 5 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1999:530982 CAPLUS

DN 131:158089

TI Method for purification of isocyanatoalkyl (meth)acrylate substantially free from chlorine by distillation and dechlorination using epoxy compound and amine

IN Misu, Naoaki; Matsuhira, Shinya; Kihara, Muneyo; Ohnishi, Yutaka

PA Showa Denko K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp. CODEN: JKXXAF

DT Patent

LA Japanese

FAN CNT 1

FAN.		1 TENT	NO.			KIN	D	DATE		AF	PL	ICAT	ION :	NO.		D	ATE	
ΡI	JР	1122	8523			A		1999				998-					9980:	
	CA	2261	324			<b>A1</b>		1999			-	999-					9990:	
	ΕP	9362	14			A2		1999		EF	, 1	999-	1023	18		1	9990:	205
	EΡ	9362	14			<b>A</b> 3		1999										
		R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB, G	R,	IT,	LI,	LU,	NL,	SE,	MC,	PΤ,
			ΙE,	SI,	LT,	LV,										_		·
	US	6245	935			B1		2001		US	1	999-	2457	07		1.	9990:	208
PRAI	JP	1998	-254	93		Α		1998				•						
	US	1998	-101	527P		P		1998	0923		_			-	3	7		

AB Isocyanatoalkyl (meta)acrylates substantially free from hydrolytic chlorine are prepared by purification which involves treatment of (A) isocyanatoalkyl acrylate containing isocyanatoalkyl 2-chloropropionate or (B) isocyanatoalkyl methacrylate containing isocyanatoalkyl 2-methyl-2-chloropropionate with an epoxy-containing compound and amine/or imidazole until

```
isocyanatoalkyl 2-chloropropionate or 2-methyl-2-chloropropionate is no
     longer present. The purified isocyanatoalkyl (meta)acrylate is useful as
     a raw material for photoresists (active ray-curable resins) suitable for
     electronic or elec. parts which is not compatible with chlorine.
     2-isocyanatoethyl methacrylate (I) containing 381 ppm hydrolytic chlorine 300,
     epoxidized fatty plasticizer (mol. weight .apprx.100 and iodine value 7)
     containing 6.1% oxirane oxygen 1.7, 2,6-di-tert-butyl-4-methylphenol 0.3, and
     triethylenetetramine 0.11 g were stirred in a glass reaction vessel at
     60° and .apprx.1.3 kPa and distilled at 85° to give 220 g I
     containing 29 ppm hydrolytic chlorine. Phenothiazine (0.15 g) was
     added the purified I (150 g) and the resulting mixture was distilled at
     70° (column bottom temperature 81°) and .apprx.0.7 kPa with a
     series of two glass columns packed with Dixon packings to give 53 g I in
     which no hydrolytic chlorine was detected.
     30674-80-7P, 2-Isocyanatoethyl methacrylate
     RL: PUR (Purification or recovery); TEM (Technical or engineered material
     use); PREP (Preparation); USES (Uses)
        (purification of isocyanatoalkyl (meth)acrylate as monomers substantially
        free from chlorine by distillation and dechlorination using epoxy compound
        amine)
     30674-80-7 CAPLUS
     2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester (CA INDEX NAME)
 H<sub>2</sub>C O
Me-C-C-O-CH_2-CH_2-NCO
L13 ANSWER 6 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
     1996:135673 CAPLUS
     124:177899
```

IT

and

RN

CN

TT

RN

CN

30674-80-7

30674-80-7 CAPLUS

```
ΑN
DN
     Novel imides and photocurable resin compositions containing imides for
TT
     improved heat resistance
     Nishama, Juko; Mikuni, Hiroyuki
IN
     Three Bond Co Ltd, Japan
PA
     Jpn. Kokai Tokkyo Koho, 11 pp.
SO
     CODEN: JKXXAF
DT
     Patent
     Japanese
LΑ
FAN.CNT 1
                                                                 DATE
                                          APPLICATION NO.
     PATENT NO.
                         KIND
                                DATE
                         _ _ _ _
                                            JP 1994-125644
                                                                    19940428
     JP 07300458 ·
                                19951114
                          Α
PI
                                19940428
PRAI JP 1994-125644
     MARPAT 124:177899
     Novel imides with N-unsatd. groups are prepared by reacting
AB
     2,2-bis(3,4-dicarboxyphenyl)-hexafluoropropane dianhydride (I) with
     acrylic isocyanates and exhibit good solubility when incorporated into a
     photocurable resin. Heating 2-methacryloyloxyethylisocyanate 1.240, I
     1.752, Bu3N 0.037, and phenothiazine 0.007 g in 10 mL DMF at
     100° for 5 h gave an imide with unsatd. groups CH2CH2OCOCMeCH2.
     The imide 0.2, 2-hydroxyethyl methacrylate 0.2, 1-phenyl-2-hydroxy-2-
     methylpropane-1-one 0.02, and chloroform 2 g was stirred, coated on a
     glass plate, and UV irradiated to give a film showing 10% weight loss
temperature
     320°.
```

(reaction with dianhydride; photocurable resin compns. containing novel

2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester (CA INDEX NAME)

RL: RCT (Reactant); RACT (Reactant or reagent)

imides for improved heat resistance)

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. | | |
Me- C- C- O- CH2- CH2- NCO
L13 ANSWER 7 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
ΑN
     1994:195667 CAPLUS
DN 120:195667
     Multifunctional viscosity index improver containing phenothiazine
     Kapuscinski, Maria M.; Kaufman, Benjamin J.; Nalesnik, Theodore E.; Biggs,
PA
     Texaco Inc., USA
     U.S., 7 pp.
     CODEN: USXXAM
DT
     Patent
LA
     English
FAN. CNT 1
                                            APPLICATION NO.
                                DATE
                                                                    DATE
     PATENT NO.
                         KIND
                                             ______
                         _ _ _ _
                                             US 1990-571815
                                                                    19900824
                          Α
                                19940104
PΙ
     US 5275746
                                            EP 1993-310501
                                                                    19931223
                                19950628
     EP 659772
                          A1
                                19980909
                          B1
     EP 659772
         R: DE, FR, GB, IT, NL
                                             JP 1993-327222
                                                                    19931224
                                19950815
     JP 07216021
                          Α
                                19900824
PRAI US 1990-571815
     Multifunctional viscosity-index improvers for lubricating oils contain an
     ethylene-propylene copolymer or ethylene-propylene-diene terpolymer
     grafted with an unsatd. reactive monomer and thereafter reacted with amino
     alkylphenothiazine.
     30674-80-7D, Isocyanatoethyl methacrylate, ethylene-propylene-
IT
     diene terpolymer grafted with, reaction products with amino
     alkylphenothiazine
     RL: USES (Uses)
        (multifunctional viscosity-index improvers, for lubricating oils)
RN
     30674-80-7 CAPLUS
     2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester (CA INDEX NAME)
CN
 H<sub>2</sub>C
      0
Me- C- C- O- CH2- CH2- NCO
     ANSWER 8 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
L13
ΑN
     1990:572920
                 CAPLUS
DN
     113:172920
     Polymerization inhibition of isocyanatoalkyl (meth)acrylates
TI
     Wakasa, Masami; Abe, Tetsuo
IN
     Showa Rodia Kagaku Co., Ltd., Japan
PA
     Jpn. Kokai Tokkyo Koho, 5 pp.
SO
     CODEN: JKXXAF
DT
     Patent
     Japanese
T.A
FAN.CNT 1
                                             APPLICATION NO.
                                                                    DATE
                          KIND
                                 DATE
     PATENT NO.
                          _ _ _ _
                                             JP 1988-299584
                                                                    19881129
                                 19900605
ΡI
     JP 02145555
                          Α
                                 19881129
PRAI JP 1988-299584
     Polymerization of isocyanatoalkyl (meth)acrylates, useful as monomers, is
     inhibited by SO2. Thus, 300 g 2-oxazolidinone was treated with 320 g
```

methacrylic acid in MePh in the presence of phenothiazine (I)

H<sub>2</sub>C O

and HCl under stirring at 60° for 30 min, then COC12 was bubbled in the solution at 80° to give 282 g 2-isocyanatoethyl methacrylate (II). When 100 g the reaction solution of II was mixed with 0.05 g I and refluxed with bubbling 20 mL/min N containing 2% SO2 at 92-96° and 7-9 mmHg for 220 min no polymer was produced.

IT 30674-80-7P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation and polymerization inhibition of)

RN 30674-80-7 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester (CA INDEX NAME)

$$\begin{array}{c|c} ^{\rm H_2C} & {\rm O} \\ & || & || \\ ^{\rm Me-} & {\rm C-C-O-CH_2-CH_2-NCO} \end{array}$$

L13 ANSWER 9 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1990:515343 CAPLUS

DN 113:115343

TI Halomethyl-1,3,5-triazines containing a monomeric moiety

IN Bonham, James A.; Rossman, Mitchell A.; Grant, Richard J.

PA Minnesota Mining and Manufacturing Co., USA

SO Eur. Pat. Appl., 21 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN CNT 1

PAN.	CNII				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	EP 359430	A2	19900321	EP 1989-308688	19890829
	EP 359430	<b>A</b> 3	19900411		
	EP 359430	B1	19950510		
	R: BE, DE, FR,	GB, II	NL		
	JP 02149570	A	19900608	JP 1989-231344	19890906
	JP 2825547	B2	19981118		
•	KR 9705533	B1	19970417	KR 1989-12839	19890906
	US 5387682	A	19950207	US 1993-49555	19930419
	US 5496504	Α	19960305	US 1994-345594	19941128
PRAI	US 1988-241691	A	19880907		
	US 1990-555301	B1	19900718		
	US 1993-49555	A3	19930419		

OS MARPAT 113:115343

GI For diagram(s), see printed CA Issue.

The title compns. [I; A = mono-, di- and trihalomethyl; M = polymerizable AΒ monomeric moiety capable of undergoing free radical or ionic chain polymerization, e.g. acrylate, methacrylate, acrylamide, vinyl ether, allyl ether, epoxide, and allyl amine group; L = covalent bond or group; Y = any group of A or LM, NHR, NR2, OR, (un) substituted alkyl, alkenyl, or (hetero)aryl; R = (un)substituted alkyl, aryl], radiation-sensitive compds. having a photo-labile halomethyl-1,3,5-triazine moiety and ≥1 polymerizable moiety within 1 mol., were prepared I are photoinitiators for printing, duplicating, copying, and other imaging compns. that can be stimulated by actinic radiation at wavelengths of .apprx.250-900 nm to generate free radicals, and can be used to prepare 1,3,5-triazine-substituted polymers. PhMe solution of 0.006 mol 2,4-bis(trichloromethyl)-6-isocyanato-1,3,5-triazine was added to a PhMe solution of 0.008 mol 2-hydroxyethyl acrylate, 12 drops di-n-butyltin dilaurate, and 100 mg phenothiazine, and the reaction mixture was stirred 24-72 h at room temperature under N to give I (A = Y = CCl3, LM = NHCO2CH2CH2O2CCH:CH2). A total of 23 I were prepared One example illustrated the use of I as initiators in light-sensitive coatings. ΙT

30674-80-7
RL: RCT (Reactant); RACT (Reactant or reagent)

(carbamoylation by, of [(hydroxyethyl)styryl]triazine derivative)
RN 30674-80-7 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester (CA INDEX NAME)

IT 129141-95-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and cotrimerization of, with trichloroacetonitrile)

RN 129141-95-3 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-[[(3-cyanophenoxy)carbonyl]amino]ethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} ^{H_2C} \circ \\ \parallel & \parallel \\ \text{Me-C-C-O-CH}_2\text{-CH}_2\text{-NH-C-O} \end{array} \qquad \begin{array}{c} \circ \\ \square \\ \text{CN} \end{array}$$

IT 128930-93-8P 128930-95-0P

RN 128930-93-8 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-[[[2-[4-[2-[4,6-bis(trichloromethyl)-1,3,5-triazin-2-yl]ethenyl]phenoxy]ethoxy]carbonyl]amino]ethyl ester, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 128930-92-7

CMF C22 H20 C16 N4 O5

PAGE 1-A

PAGE 1-B

CM 2

CRN 80-62-6 CMF C5 H8 O2

$$H_2C$$
 O  $\parallel$   $\parallel$   $\parallel$  Me-C-C-OMe

RN 128930-95-0 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-[[[3-[4,6-bis(trichloromethyl)-1,3,5-triazin-2-yl]phenoxy]carbonyl]amino]ethyl ester, polymer with octyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 128930-94-9 CMF C18 H14 C16 N4 O4

$$\begin{array}{c|c} \mathsf{C1}_3\mathsf{C} & \mathsf{N} & \mathsf{O} & \mathsf{CH}_2 \\ \mathsf{N} & \mathsf{N} & \mathsf{O} & \mathsf{C} - \mathsf{NH} - \mathsf{CH}_2 - \mathsf{CH}_2 - \mathsf{O} - \mathsf{C} - \mathsf{C} - \mathsf{Me} \\ \\ \mathsf{CC1}_3 & & & \\ \end{array}$$

CM 2

CRN 2499-59-4 CMF C11 H20 O2

IT 128930-92-7P 128930-94-9P 129141-92-0P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of, as monomer and photoinitiator)

RN 128930-92-7 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-[[[2-[4-[2-[4,6-bis(trichloromethyl)-1,3,5-triazin-2-yl]ethenyl]phenoxy]ethoxy]carbonyl]amino]ethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 128930-94-9 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-[[[3-[4,6-bis(trichloromethyl)-1,3,5-triazin-2-yl]phenoxy]carbonyl]amino]ethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Cl}_3\text{C} & \text{O} & \text{CH}_2\\ \text{II} & \text{O} & \text{CH}_2\text{-}\text{CH}_2\text{-}\text{O} - \text{C} - \text{C} - \text{Me} \\ \\ \text{CCl}_3 & & & & & & & & & & \\ \end{array}$$

RN 129141-92-0 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 8-[4,6-bis(trichloromethyl)-1,3,5-triazin-2-yl]-4,12-dioxo-5,11-dioxa-3,8,13-triazapentadecane-1,15-diyl ester (9CI) (CA INDEX NAME)

C1<sub>3</sub>C N CC1<sub>3</sub> O CH<sub>2</sub> N O CH<sub>2</sub> N O CH<sub>2</sub> 
$$|| || || ||$$
 N O CH<sub>2</sub>  $|| || || || ||$  N CH<sub>2</sub> CH<sub>2</sub> O C C NH CH<sub>2</sub> CH<sub>2</sub> O C C C Me

$$\begin{array}{c} {\tt R} \\ | \\ {\tt CH_2-CH_2-O-C-NH-CH_2-CH_2-O-C-C-Me} \\ || \\ {\tt O} \\ \end{array}$$

L13 ANSWER 10 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1989:553220 CAPLUS

DN 111:153220

TI Purification of unsaturated carboxylic acid isocyanatoalkyl esters by distillation

IN Abe, Tetsuo; Yokoo, Hidejiro; Wakasa, Masami

PA Showa Rodia Kagaku Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

FAN.	CNT I						
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
PI	JP 01042463	Α	19890214	JP 1987-198157	19870810		
	JP 07103085	В	19951108	•			
PRAI	JP 1987-198157		19870810				
os	MARPAT 111:153220						

AB The title esters, useful as monomers, are purified by distillation in the presence of ≥1 compound selected from phenothiazine (I), alkylphenols, hydroquinone, alkylhydroquinones, p-MeOC6H4OH, tannic acid, and anthraquinone and ≥1 compound selected from Et2NCH2CH2OH (II), N-nitroso-N-arylhydroxylamine NH4 salts, N-nitroso-N-propylurethane,

H2NNHCH2CH2OH, and C6H4(NO2)2 to prevent popcorn polymerization CH2:CMeCO2H (320

g) was gradually added to mixture of 300 g 2-oxazolidinone, I, and toluene while bubbling with HCl over 60 min, and the reaction mixture was further stirred at 60° for 30 min, and then heated at 80° while bubbling with COCl2. After distilling off toluene, 230 g reaction mixture containing CH2:CMeCO2CH2CH2NCO (III) was distilled with II under 10-12 mmHg while

adding 50 g reaction mixture containing II dropwise to give 108 g III, vs. formation of polymers preventing distillation for a control without addition of II.

IT 30674-80-7P, 2-Isocyanatoethyl methacrylate

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation and distillation of, polymerization inhibitors for)

RN 30674-80-7 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester (CA INDEX NAME)

L13 ANSWER 11 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1989:496668 CAPLUS

DN 111:96668

TI Preparation of unsaturated carboxylic acid isocyanatoalkyl esters

IN Abe, Tetsuo; Yokoo, Hidejiro; Nozawa, Kaneo

PA Showa Rodia Kagaku Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

KIND	DATE	APPLICATION NO.	DATE
Α	19890228	JP 1987-209371	19870825
	19870825		
		A 19890228	A 19890228 JP 1987-209371

OS MARPAT 111:96668

AB The title esters are prepared by treatment of unsatd. carboxylic acid aminoalkyl ester hydrochlorides with COCl2 under a decreased pressure and/or under stream of N to prevent addition of HCl to unsatd. bonds and/or an isocyanato group. A solution of 61 g H2NCH2CH2OH in toluene was bubbled with HCl at 75° 5 h, phenothiazine was added, and the reaction mixture was treated with 110 g CH2:CMeCOCl at 85°. The reaction mixture was bubbled with COCl2 at 410-450 mmHg and 90° and further kept for 2 h to give 91.8 g CH2:CMeCO2CH2CH2NCO, vs. 62.1 g for a control at atmospheric pressure.

IT 30674-80-7P, 2-Isocyanatoethyl methacrylate

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of, from aminoalkyl methacrylate hydrochloride and phosgene)

RN 30674-80-7 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester (CA INDEX NAME)

L13 ANSWER 12 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1989:477514 CAPLUS

DN 111:77514

```
Purification of unsaturated carboxylic acid isocyanatoalkyl esters by
TI
    distillation
    Abe, Tetsuo; Yokoo, Hidejiro; Nozawa, Kaneo
IN
PΑ
    Showa Rodia Kagaku Co., Ltd., Japan
    Jpn. Kokai Tokkyo Koho, 6 pp.
SO
    CODEN: JKXXAF
DT
    Patent
LA
    Japanese
FAN.CNT 1
                               DATE
                                         APPLICATION NO.
                                                                 DATE
    PATENT NO.
                       KIND
     ______
                                          ______
                                                                  -----
                        ----
                               _____
                                           JP 1987-198155
                                                                  19870810
    JP 01042461
                        Α.
                               19890214
    JP 07049413
                        В
                               19950531
PRAI JP 1987-198155
                               19870810
    MARPAT 111:77514
    The title esters, useful as monomers, are purified by distillation under
AΒ
    continuous or intermittent addition of nitrite esters in the presence of
    Sn(2+) and/or Fe(2+) compds. to prevent popcorn polymerization CH2:CMeCO2H
(320
    g) was gradually added to a solution of 300 g 2-oxazolidinone in toluene
    containing phenothiazine while bubbling with HCl at 60° over
    60 min, and the reaction mixture was further bubbled with HCl at 60°
    for 30 min, and then heated at 80° while bubbling with COCl2.
    After distilling off toluene, 230 g product containing CH2:CMeCO2CH2CH2NCO (I)
was
    distilled with SnCl2 and the HNO2 ester (II) of HOCH2CH2OCH2CH2OBu under
    dropwise addition of 50 g product containing II to give 115 g I. When the
    reaction product was distilled without addition of SnCl2 and II, granules of
    polymerized matter were formed at the upper part of the distillation tower and
    polymer beads grew in the reaction mixture
IT
     30674-80-7P
    RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation and distillation of, polymerization inhibitors for)
     30674-80-7 CAPLUS
RN
     2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester (CA INDEX NAME)
CN
 H<sub>2</sub>C O
Me-C-C-O-CH2-CH2-NCO
L13 ANSWER 13 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
AN
    1989:410091 CAPLUS
DN
    111:10091
    Lubricating oil containing dispersant-viscosity index improver
TI
    Hart, William P.; Kapuscinski, Maria M.; Liu, Christopher S.
IN
PΑ
     Texaco Inc., USA
SO
     U.S., 8 pp.
     CODEN: USXXAM
DT
     Patent
    English
LΑ
FAN.CNT 1
                                           APPLICATION NO.
     PATENT NO.
                        KIND
                               DATE
                                           _____
                        ----
                               _____
                                           US 1986-947121
                                                                  19861229
                               19890103
     US 4795577
                         A
PΙ
                               19861229
PRAI US 1986-947121
     MARPAT 111:10091
     Lubricating oil with improved pour point, dispersancy and viscosity index
AB
     contain a functionalized polymer prepared by copolymg., under free radical
     polymerization conditions, (i) 1st monomer containing an ethylenically unsatd.
C-C
     double bond and an isocyanate and (ii) 2nd monomers containing an
```

ethylenically-unsatd. C-C double bond and which is free of isocyanate

moieties, forming a copolymer (mol. weight 10,000-1,000,000) containing pendant side chains, functionalizing the copolymer with a 1st agent containing >1 S and >1 hetero N atom, and functionalizing the copolymer with a 2nd agent of primary or secondary amine. Thus, a base oil blend containing 4.85 weight% (polymer level) of phenothiazine-3-dimethylaminopropylamine dually functionalized isocyanatoethyl methacrylate-lauryl methacrylate-stearyl methacrylate copolymer was tested for dispersancy by the Bench VC Test, resulting in a dispersancy rating of 33 (7/38/78 stds.), vs. 97 (7/34/75 stds.) for the base bland containing unfunctionalized copolymer.

IT 121136-21-8D, Isocyanatoethyl methacrylate-lauryl methacrylate-stearyl methacrylate copolymer, antioxidant and/or dispersant amine-functionalized

RL: USES (Uses)

(dispersants-viscosity index improvers, for lubricating oils)

RN 121136-21-8 CAPLUS

CN 2-Propenoic acid, 2-methyl-, dodecyl ester, polymer with 2-isocyanatoethyl 2-methyl-2-propenoate and octadecyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 32360-05-7 CMF C22 H42 O2

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ & || & || \\ \text{Me-- (CH}_2)_{\,17} - \text{O-- C-- C-- Me} \end{array}$$

CM 2

CRN 30674-80-7 CMF C7 H9 N O3

$$^{\rm H_2C}$$
  $^{\rm O}$   $^{\rm II}$   $^{\rm II}$   $^{\rm Me-}$   $^{\rm C-}$   $^{\rm C-}$   $^{\rm O-}$   $^{\rm CH_2-}$   $^{\rm CH_2-}$   $^{\rm NCO}$ 

CM 3

CRN 142-90-5 CMF C16 H30 O2

$$$^{\rm O}_{\rm H_2}$$$
 Me $^-$  (CH $_2$ )  $_{\rm 11}-$  O $^-$  C $^-$  C $^-$  Me

L13 ANSWER 14 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1988:168145 CAPLUS

DN 108:168145

TI Preparation of unsaturated fatty acid 2-isocyanatoethyl esters from 2-oxazolidinone, unsaturated fatty acids, and phosgene

IN Yokoo, Hidejiro

PA Showa Rhodia Kagaku Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 2 CODEN: JKXXAF

```
DT
     Patent
LΑ
     Japanese
FAN.CNT 1
     PATENT NO.
     _____
PΙ
     JP 63010750
```

	KIND	DATE	APPLICATION NO.	DATE
0	· A	19880118	JP 1986-152782	19860701
2	ъ	10050510		

JP 07042263 19950510 PRAI JP 1986-152782 19860701

CASREACT 108:168145

Unsatd. lower fatty acid 2-isocyanatoethyl esters, useful as bifunctional AB monomers, were prepared by treating 2-oxazolidinone (I) with unsatd. fatty acids in the presence of HCl followed by treatment of the resulting product with COCl2. Thus, 32 g CH2: CMeCO2H was added dropwise to a toluene solution containing 30 g I and phenothiazine under bubbling with HCl at 60° over 60 min, the reaction mixture was further stirred under HCl for 30 min, and then the resulting suspension was bubbled with COC12 at 80° till it became homogeneous solution to give 24 g CH2: CMeCO2CH2CH2NCO.

IT 30674-80-7P, 2-Isocyanatoethyl methacrylate

RL: PREP (Preparation)

(preparation of, by reaction of oxazolidinone and methacrylic acid and phosgene)

RN 30674-80-7 CAPLUS

2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester (CA INDEX NAME) CN

$$\begin{array}{c|c} ^{\rm H_2C} & {\rm O} \\ \parallel & \parallel \\ {\rm Me-C-C-O-CH_2-CH_2-NCO} \end{array}$$

ANSWER 15 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN L13

1987:102820 CAPLUS  $\mathbf{N}\mathbf{A}$ 

DN 106:102820

Preparation of  $\omega$ -isocyanatoalkyl (meth)acrylates TI

Merger, Franz; Schwarz, Wolfgang IN

PA BASF A.-G. , Fed. Rep. Ger.

SO Ger. Offen., 5 pp. CODEN: GWXXBX

DT Patent

	man			· ·	
FAN.CNT PAT	ENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE	3523692	` A1	19870108	DE 1985-3523692	19850703
	207461	A2	19870107	EP 1986-108777	19860627
EP	207461	A3	19871209		
EP	207461	B1	19910306		
	R: DE, FR,	GB ·	•	4	
JP	62010053	A	19870119	JP 1986-149883	19860627
JP	06037454	В	19940518		
EP	380146	A2	19900801	EP 1990-105691	19860627
EP	380146	A3	19910109		
EP	380146	B1	19930818		
	R: DE, FR,	GB ·			
PRAI DE	1985-3523692	A	19850703		
EP	1986-108777	P	19860627		
OS CAS	REACT 106:102	820			

H2C:C(R)CO2ZNCO (I; R = H, Me; Z = alkylene, oxaalkylene, C2-12. AB polyoxaalkylene) monomers are prepared by reaction of an α,ω-aminoalc. with H2NCOMH2 and an alc. forming an alkyl N-hydroxyalkylcarbamate, which is subsequently esterified with (meth)acrylate esters or (meth)acrylic acid anhydride, and I is formed by heating the diester intermediate. An autoclave was charged with

H2N(CH2)4OH 35.6, H2NCONH2 26.4, BuOH 592 g, and 68 mg ZnCl2. The reactor was refluxed for 5 h at 5 bar to remove NH4OH and produce a yellow liquid, which was distilled at 140°/0.1 mbar producing 59.7 g of >99% purity Bu N-(4-hydroxybutyl)carbamate (II) (79% conversion). A reactor was charged with II 378, Me methacrylate 800, and Ti(OBu)4 8. The reactor was heated to boiling for 3.5 h and 215 g MeOH-Me methacrylate mixture distilled to give Bu N-(4-methacryloyloxybutyl)carbamate (III). Over 4 h 385 g III (stabilized with 100 ppm phenothiazine) was thin-film distilled at 175°/1 mbar, and the urethane vapors transported to a splitting reactor, average temperature 365°/1 mbar, from the first condensing unit at which 276 g 84% 4-isocyanotobutyl methacrylate (IV) (containing 12% starting material) was obtained. IV distillation at 100°/0.1 mbar produced 206 g 98.6% pure IV, representing 96% isocyanate splitting selectivity.

IT 107023-62-1P

RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent) (preparation and thermal decomposition of, isocyanotobutyl methacrylate

from)

RN 107023-62-1 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 4-[(butoxycarbonyl)amino]butyl ester (9CI) (CA INDEX NAME)

IT 107023-61-0P

RL: PREP (Preparation)

(preparation of, as intermediate for insecticides and copolymers)

RN 107023-61-0 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 4-isocyanatobutyl ester (9CI) (CA INDEX NAME)

O 
$$CH_2$$
 | | | | | OCN- ( $CH_2$ ) 4-O-C-C-Me

L13 ANSWER 16 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1985:479493 CAPLUS

DN 103:79493

TI Water-soluble Michlers ketone analogs

IN Reilly, Laurence W., Jr.

PA Minnesota Mining and Manufacturing Co., USA

SO U.S., 9 pp. CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

FF	MI.CHI I				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	US 4507497	A	19850326	US 1983-471838	19830303
	US 4576975	Α	19860318	US 1984-683208	19841218
PF	RAI US 1983-471838	A3	19830303		
OS	MARPAT 103:79493				
GI	_				

$$HO_2CR^1NR$$
 (CO)  $n$  NRR<sup>2</sup>

AB A photoinitiator system is described for polymerization of ethylenically unsatd.

materials. The photoinitiator which is useful in preparation of photopolymeric imaging compns. (for lithog. plates fabrication, proofing materials, photoresists, inks etc.) consists of a free radical initiator and a Michler's ketone analog sensitizer having a formula I (R = C1-8 alkyl; R1 = C1-8 alkylene; R2 = R1CO2H, R1H; n = 1, 2). Thus, a grained, anodized Al support was coated with a composition containing pentaerythritol tetraacrylate

155.2, polymethacrylated urethane oligomer (US 4,228,232) 173.3, Formvar 12/85 551, a polymer (US 4,228,232, preparation 5) 146.3, triethylamine 7.75, PrOH/H2O azeotrope 1850, diphenyliodonium hexafluorophosphate 15.7, Michler's ketone 7.85 g, dried at 66° for 2 min, cured 4 s at 20.3 cm from a Hg metal halide lamp, overcoated with a composition containing acrylimidomethyldextrin (prepared by reacting corn-based dextrin with N-methylolacrylamide in presence of acrylic acid and phenothiazine ) 3.96, 48% N-methylolacrylamide 3.75, diphenyliodonium hexafluorophosphate 0.18, H2O 23.3, triton X-100 0.3, Colanyl red pigment 0.63, 4,4'-bis(N-2-carboxyethyl-N-methylamino)benzil 0.18 g, dried at 66°, imagewise exposed, developed with H2O to provide a printing plate which after providing 15,000 impressions showed wear in background only in darkest shadows.

IT 97458-03-2

CN

RL: USES (Uses)

(lithog. plate material with photopolymeric composition containing)

RN 97458-03-2 CAPLUS

Benzenedicarboxylic acid, 2,13-diethyl-22-methyl-2-[[[[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]amino]carbonyl]oxy]-13-[[[[[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]amino]carbonyl]oxy]methyl]-5,10,16,21-tetraoxo-4,11,15,20-tetraoxa-17-azatricos-22-en-1-yl 14-ethyl-1,4,23-trimethyl-14-[[[[[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]amino]carbonyl]oxy]methyl]-6,11,17,22-tetraoxo-2,5,12,16,21-pentaoxa-18-azatetracos-23-en-1-yl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-B

19830303

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ANSWER 17 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
L13
     1985:229502 CAPLUS
AN
DN
     102:229502
     Water developable positive acting lithographic printing plate
ΤI
     Rousseau, Alan D.; Fohrenkamm, Elsie A.; Kausch, William L.
IN
     Minnesota Mining and Manufacturing Co., USA
PA
     U.S., 12 pp.
SO
     CODEN: USXXAM
·DT
     Patent .
LΑ
     English
FAN.CNT 1
                          KIND
                                 DATE
                                              APPLICATION NO.
     PATENT NO.
     US 4507382
                           Α
                                 19850326
                                              US 1983-471808
PRAI US 1983-471808
                                 19830303
```

AB A durable water-developable pos. lithog. plate is prepared by coating a metallic or polymeric support with an oleophilic composition, drying, curing, overcoating with a water-soluble photopolymer composition containing an ethylenically

unsatd. dextrin oligomer, exposing, and then developing with water to

provide hydrophilic background areas and oleophilic image areas. Thus, a poly(vinylidene chloride)-primed polyester support was coated with a composition containing a urethane oligomer (prepared by reacting Lexorez

5171-280

with 2-isocyanotoethyl methacrylate in the presence of di-Bu dilaurate and Irganox 1010 antioxidant) 109.6, Michler's ketone 4, diphenyliodonium hexafluorophosphate 4, amorphous silica (Imsil A-10) 100, MeCOEt 122, PrOH 107.7, and H2O 42.3 g, dried, irradiated 40 s at 20.3 cm from a 5 kW Hg lamp, overcoated with an aqueous composition containing H2O 10,

1,3-diacrylamido-2-

hydroxypropane 1.3, 31% aqueous 2,3-dihydroxy-1-acrylamidopropane 2.1, a 50% aqueous dispersion Colanyl Red pigment 0.67, Syloid 244 1.95, diphenyliodonium hexafluorophosphate 0.1, 4,4'-bis(N-2-carboxyethyl-N-

methylamino)benzophenone di-Na salt (2% aqueous) 7.7, acrylamidoethyldextrin (prepared by reacting dextrin with N-methylolacrylamide in aqueous solution containing

acrylic acid and phenothiazine) 3 g, dried, imagewise exposed for 5 s, developed with water, and run on a printing press to give 12,000 copies with a coarse ink.

IT 30674-80-7D, reaction products with polyester polyols

RL: USES (Uses)

(lithog. pos. printing plate with oleophilic layer containing, water-developable)

RN 30674-80-7 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester (CA INDEX NAME)

$$\begin{array}{c|c} ^{\rm H_2C} & {\rm O} \\ & || & || \\ ^{\rm Me-} & {\rm C-C-O-CH_2-CH_2-NCO} \end{array}$$

L13 ANSWER 18 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1985:115245 CAPLUS

DN 102:115245

TI Wet adhesion promoters for emulsion polymers

IN Sekmakas, Kazys; Shah, Raj

PA De Soto, Inc., USA

SO U.S., 4 pp. CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	U-11 -					
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	US 4487940	Α	19841211	US 1983-511992	19830708	
	US 4526915	A	19850702	US 1984-656533	19841001	
PRAI	US 1983-511992	A3	19830708			

OS MARPAT 102:115245 Acrylate or methacrylate functional copolymerizable monomers which enhance AB the adhesion of emulsion copolymer latexes to substrates are prepared by treating an (aminoalkyl) alkyleneurea with a saturated monoepoxide and then a monoisocyanate having a single (meth)acrylate group in the presence of phenothiazine (I) [92-84-2] and an inhibitor which retards the free-radical polymerization of ethylenic unsatn. Thus, 195 g 2-aminoethyl ethyleneurea in 130 g toluene was heated to 80° and treated with 105 q propylene oxide over 2 h. The product was cooled to 40° and 0.3 g hydroquinone [123-31-9] and 0.6 g I were added. Then 216 g isocyanatoethyl methacrylate was added over 2 h at 40° to give a storage-stable monomer having Gardner viscosity A-B. An aqueous emulsion polymer latex prepared using vinyl acetate 84%, Bu acrylate 14%, and above monomer 2% was pigmented with TiO2 and applied to a glossy alkyd surface. Excellent adhesion was obtained and the scrub resistance of the coating was excellent.

```
propylene oxide, polymers with Bu acrylate and vinyl acetate
    RL: TEM (Technical or engineered material use); USES (Uses)
        (coatings, with good adhesion to glossy substrates)
RN
     30674-80-7 CAPLUS
     2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester (CA INDEX NAME)
CN
Me-C-C-O-CH2-CH2-NCO
L13 ANSWER 19 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
AN
    1978:581360 CAPLUS
DN
    89:181360
    Polyurethane coating composition curable by addition polymerization
ΤI
IN
    Darling, Thomas Robert
PΑ
    du Pont de Nemours, E. I., and Co., USA
SO .
    U.S., 7 pp.
    CODEN: USXXAM
DT
    Patent
LΑ
    English
FAN.CNT 1
                                           APPLICATION NO.
    PATENT NO.
                        KIND
                               DATE
                                                                  DATE
                                           ------
     -----
                        ----
                               _____
                                           US 1977-766598
                                                                  19770208
PΙ
    US 4097439
                         Α
                               19780627
PRAI US 1977-766598
                               19770208
    Tough, elastomeric, mar-resistant, stain-resistant polyurethane coatings,
    readily adherent to substrates such as wood, metal, vinyl and other floor
    tile, and the like, are manufactured from free-radically crosslinkable compns.
    containing urethane prepolymers, diamines and unsatd. monomers. Thus, TDI
    52.2, polypropylene glycol (mol. weight 986) 145.4, and 2-hydroxyethyl
    acrylate (containing 0.13% phenothiazine) 11.6 g were stirred 1 h at
    60°, cooled to 55°, and mixed with 10 drops Bu2Sn dilaurate
     (8-10° exotherm occurred); stirring was maintained at 55-60°
    for 1.75 h, and the mixture was heated 1 h at 60° with 8.6 g
    1,4-butanediol and 25 g N-vinylpyrrolidone (I) to give a solution that was
    pourable at 50°. Heated oligomer (90% in I) was mixed (30 g) with
    3 g I and 6 g 2-ethylhexyl acrylate to give a syrup that afforded nontacky
    odor-free copolymer [68033-06-7] coatings on cloth or poly(ethylene
    terephthalate) [25038-59-9] film with good bonding after 1-megarad
    dosages of a 2-meV electron beam under N; unsupported films exhibited
    tensile strength 1950 psi, 100% modulus 780 psi, and breaking elongation
    200%.
IT
    68033-10-3
    RL: USES (Uses)
        (rubber, free-radical-crosslinkable)
    68033-10-3 CAPLUS
RN
    1,3-Benzenedicarboxylic acid, polymer with butanediol, ethyl
CN
    2-methyl-2-propenoate, 1,6-hexanediamine, 2-isocyanatoethyl
    2-methyl-2-propenoate, 1,1'-methylenebis[4-isocyanatocyclohexane], methyl
    2-methyl-2-propenoate and methyl 2-propenoate (9CI) (CA INDEX NAME)
    CM
    CRN
        30674-80-7
```

30674-80-7D, reaction products with (aminoethyl)ethyleneurea and

CMF C7 H9 N O3

IT

CM 2

CRN 25265-75-2

CMF C4 H10 O2

CCI IDS

 $_{\rm H_3C^-CH_2^-CH_2^-CH_3}$ 

2 (D1-OH)

CM 3

CRN 5124-30-1

CMF C15 H22 N2 O2

CM 4

CRN 124-09-4

CMF C6 H16 N2

 $H_2N-(CH_2)_6-NH_2$ 

CM 5.

CRN 121-91-5

CMF C8 H6 O4

CM 6

CRN 97-63-2

CMF C6 H10 O2

```
CM 7
```

CRN 96-33-3 CMF C4 H6 O2

CM 8

CRN 80-62-6 CMF C5 H8 O2

L13 ANSWER 20 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1975:565174 CAPLUS

DN 83:165174

TI Hardeners for epoxy resin adhesives

IN Kobayashi, Teruo; Ogawa, Mariko; Kishi, Skuji

PA Denki Kagaku Kogyo K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp. CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 50069143	A	19750609	JP 1973-113492	19731009
		_	10001000		

PRAI JP 1973-113492 A 19731009

AB Epoxy resin adhesive compns. with long pot life are prepared by heat mixing an epoxy resin with ≥10% of an amide acrylate [(H2C:CYCO2R3NR1CO)nRCONHR2O2CCY:CH2; n = o, integer; R,R2,R3 = aliphatic, aromatic, or alicyclic group; R1 = H, aliphatic, or arom groups; Y = H,

halogen,

or aliphatic hydrocarbyl]. Thus, a mixture of CH2:CMeCO2CH2CH2NHCO(CH2)10CONH CH2CH2O2CCMe:CH2 [56768-15-1] 45, Epikote 828 [25068-38-6] 20, and phenothiazine 0.06 g was heated 20 hr at 85° to give a liquid, which (95 parts) was mixed with cumene hydroperoxide 5, p-benzoquinone 0.05, ascorbic acid 1, Co naphthenate 0.5, and EtOH 100 parts to give an epoxy resin adhesive with pot life 6 months at 20°.

IT 56768-15-1

RL: USES (Uses)

(epoxy resins containing, for adhesives with extended pot life)

RN 56768-15-1 CAPLUS

CN 2-Propenoic acid, 2-methyl-, (1,12-dioxo-1,12-dodecanediyl)bis(imino-2,1-ethanediyl) ester (9CI) (CA INDEX NAME)

```
L13 ANSWER 21 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
AN
     1974:464277 CAPLUS
DN
     81:64277
ΤI
     Amide acrylate compounds
     Kobayashi, Teruo; Sasaki, Tsutomu; Kishi, Ikuji
IN
PA
     Denki Kagaku Kogyo K. K.
     Jpn. Kokai Tokkyo Koho, 11 pp.
SO
     CODEN: JKXXAF
DT
     Patent
LΑ
     Japanese
FAN.CNT 1
                                          APPLICATION NO.
     PATENT NO.
                       KIND DATE
                                                                  DATE
                              -----
                       ----
     _____
                                           ______
     JP 49018822 A
                                19740219 JP 1972-59731
                                                                  19720615
PI.
PRAI JP 1972-59731
                        A 19720615
     N, N'-bis(acryloyloxy)alkylalkanediamides, manufactured by esterification of
     bis(hydroxyalkyl)alkanediamides with methacrylic acid (I) [79-41-4], were
     useful as adhesives, plastics and rubber additives, and sealing and
     fiber-treating agents. Thus, 46.6 g N, N'-bis(2-hydroxyethyl)hexanediamide
     [1964-73-4] was heated with 87.8g I and 0.1g phenothiazine in
     PhMe until 7.2 ml. H2O distilled azeotropically, and gave
     N, N'-bis[2-(methacryloyloxy)ethyl]hexanediamide [52018-77-6]
     with 92% yield.
     52018-77-6P
IT
     RL: IMF (Industrial manufacture); PREP (Preparation)
        (manufacture of)
RN
     52018-77-6 CAPLUS
     2-Propenoic acid, 2-methyl-, (1,6-dioxo-1,6-hexanediyl)bis(imino-2,1-
CN
     ethanediyl) ester (9CI) (CA INDEX NAME)
  H<sub>2</sub>C O
Me-C-C-O-CH_2-CH_2-NH-C-(CH_2)_4-C-NH-CH_2-CH_2-O-C-C-Me
L13 ANSWER 22 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
     1969:514087 CAPLUS
AN
     71:114087
DN
     Fiber-forming acrylonitrile copolymers
ΤI
     Farbenfabriken Bayer A.-G.
PA
     Fr., 7 pp.
SO
     CODEN: FRXXAK
DT
     Patent
     French
LΑ
FAN.CNT 1
                       KIND DATE
                                          APPLICATION NO.
                                                                  DATE
     PATENT NO.
                               -----
                                                                  19680202
                               19690321
                                           FR
· PI
     FR 1560561
                                           DE
     DE 1720614
                                           GB
     GB 1163866
                                19700721
                                                                  19680126
     US 3520855
                                           US
                                19670202
PRAI DE
     Fiber-forming acrylonitrile (I) copolymers with ethylenically unsatd.
AΒ
     oxalamide-hydrazides have unusual heat stability, are easily spinnable,
     and have high affinity for basic dyes. The copolymers are prepared by
     reaction of ≥30% copolymd. I, 0.5-20% copolymd. N,N-disubstituted
     oxalamide-hydrazide (RNHCOCONHNR1R2) or its quaternized derivative (II),
     (RNHCOCON+HNR1R2R3)Y-, and 2-12% of another comonomer in an aqueous medium in
     the presence of a redox catalyst or in a polyacrylonitrile solvent in the
     presence of a free-radical catalyst. Thus, 88 l. H2O was heated to
     55°, in air replaced by N, I 6.54, Me acrylate (III) 460, and II (R
     = CH2:CMeCO2CH2CH2, R1 = R2 = R3 = Me, Y = p-MeC6H4SO3-) (V) 690 g. added,
     52 q. K2S208 in 500 ml. H2O and 36 g. Na2S2O5 in 500 ml. H2O added, the pH
```

adjusted to 2 with 20% toluenesulfonic acid solution, the mixture stirred for 5 hrs. at 50° under N, and the pure, fine white polymer grains separated, washed, and dried under vacuum at 50-5° to give 6.5 kg. polymer having a K value of 84.4 and containing 6.3% III and 203 meq. quaternized oxalamide-hydrazide group/kg. IV (m. 130-2°) was prepared by dissolving 165 parts CH2:CMeCO2CH2CH2NH2.HCl and 160 parts EtO2CCONHNMe2 in 1000 parts MeOH, adding 40 parts NaOH in 200 parts MeOH, stirring 6-8 hrs. at 30-50°, separating the precipitated NaCl, drying the filtrate under vacuum to precipitate 220 parts CH2:CMeCO2CH2CH2NHCOCONHMe2 (V, m. 90-2°), dissolving 243 parts V in 1500 parts Me2CO, stabilizing with 1 part phenothiazine, adding 204 parts Me p-toluenesulfonate in 300 parts Me2CO at room temperature, and stirring for 12-16 hrs.

IT 26265-82-7P, preparation RL: PREP (Preparation)

(fiber)

RN 26265-82-7 CAPLUS

CN Hydrazinium, 2-[(2-hydroxyethyl)oxamoyl]-1,1,1-trimethyl-, p-toluenesulfonate, methacrylate (ester), polymer with acrylonitrile and methyl acrylate (8CI) (CA INDEX NAME)

CM 1

CRN 107-13-1 CMF C3 H3 N

 $H_2C = CH - C = N$ 

CM. 2

CRN 96-33-3 CMF C4 H6 O2

$$\begin{array}{c} \text{O} \\ || \\ \text{MeO-C-CH-----} \text{CH-----} \text{CH}_2 \end{array}$$

CM 3

CRN 23592-46-3 CMF C11 H20 N3 O4 . C7 H7 O3 S

CM 4

CRN 45214-71-9 CMF C11 H20 N3 O4

CM 5

CRN 16722-51-3 CMF C7 H7 O3 S

IT 23592-46-3P

RL: IMF (Industrial manufacture); PREP (Preparation)

(preparation of)

RN23592-46-3 CAPLUS

Hydrazinium, 2-[(2-hydroxyethyl)oxamoyl]-1,1,1-trimethyl-, CN

p-toluenesulfonate, methacrylate (ester) (8CI) (CA INDEX NAME)

CRN 45214-71-9

CMF C11 H20 N3 O4

CM 2

CRN 16722-51-3 CMF C7 H7 O3 S

L13 ANSWER 23 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN

ΑN 1968:505897 CAPLUS

DN69:105897

Betaines of unsaturated sulfonic acids, as antistatic agents TI

PΑ Farbenfabriken Bayer A.-G.

SO Fr., 4 pp.

CODEN: FRXXAK

DT Patent

LΑ French

FAN.CNT 1								
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE			
PI	FR 1504983		19671208	FR 1966-87102	19661212			
	DE 1518904			DE				
	GB 1156630			GB '				
	US 3505391		19700407	US	19661206			
PRAI	DE		19651216					

The title compds., which are used as antistatic agents for polymers, are AΒ prepared by treating N,N-disubstituted acid hydrazides with aliphatic sultones at 20-150° in a polar organic solvent in the presence of a polymerization inhibitor. Thus, to a solution of 165 parts

CH2:CMeCO2CH2CH2NH2 and

160 parts EtO2CCONHNMe2 in 1000 parts MeOH, a solution of 40 parts NaOH in 200 parts MeOH was added at room temperature The mixture was stirred 6-8 hrs.

at

30-50°, filtered, and the filtrate evaporated to dryness to give 220 parts CH2:CMeCO2CH2CH2NHCOCONHNMe2 (I), m. 90-2°. I (243 parts) was dissolved in 1500 parts MeCN, then 130 parts propane 1,3-sultone in 100 parts MeCN was added in the presence of 1 part phenothiazine, and the mixture stirred 12-16 hrs. at room temperature and 24 hrs. at 80° to give 290 parts CH2:CMeCO2RNR1COCONHN+Me2CH2CH2SO3- (II, R = CH2CH2, R1 = H), m. 115-58° (decomposition). The following II were also prepared (R, R1, and m.p. given): m-C6H4, H, 199-204° (decomposition); p-C6H4, H, 209-11° (decomposition); CH2CH2, Me, 152-4°.

IT 19070-66-7P

RN 19070-66-7 CAPLUS

CN Hydrazinium, 1,1-dimethyl-2-[[[2-(2-methyl-1-oxo-2 propenyl)ethyl]amino]oxoacetyl]-1-(3-sulfopropyl)-, inner salt (9CI) (CA
 INDEX NAME)

L13 ANSWER 24 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1968:60629 CAPLUS

DN 68:60629

TI N-(Acryloxyalkyl)acylamide monomers and polymers useful as coatings, films, thickeners, or finishes for textiles, leather, paper, and plastics

IN Kelley, Everett J.

PA Rohm and Haas Co.

SO U.S., 7 pp. CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

T. LITA . A	C11 1 1				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3366613	A	19680130	US 1967-615362	19670213
	US 1967-615362	A	19670213		
AB	Monomers having	the general	l formula	H2C:C(R)CO2(CH2)xNHCOR1	(I) were

prepared I (R, x, R1, b.p./mm., and n20D given) are as follows: Me, 1, Me, 96-101°/0.5-0.75, 1.4700; H, 1, Me, -, -; Me, 2, H, 127°/1, 1.4782; and Me, 2, Me,  $130-40^{\circ}/1$ , 1.4705. They were prepared by treating a methacrylic acid or acrylic acid halide or anhydride with an amino alc. of the formula R2COR3NR4OH, where R2 = Me, R3 = H, and R4 = CH2 or (CH2)2. The monomers can be homopolymd. or copolymd. in bulk, in solution, or in either emulsion or suspension. The polymers are useful as coatings or films, thickeners, and warp sizers or finishes for textiles, leather, paper, and plastics. Thus, 236 parts methacrylic anhydride was added during 0.5 hr. at 40-50° to a mixture containing N-methylolacetamide 136, phenothiazine 0.77, and PhMe 272 parts. The mixture was refluxed for 2 hrs. and distilled to give N-(methacryloxymethyl)acetamide (II), b0.5-0.7 96-101°, n20D 1.4700. II was homopolymd. by refluxing in C6H6 with 0.5% [Me2C(CN)N:]2 (III). A copolymer was prepared by adding 67 parts PhMe to a flask and heating to 110°. A monomeric mixture catalyst solution containing Bu methacrylate 45, Me methacrylate 50, N-(methacryloxymethyl)acetamide 5, and III 0.5 part was added during 2 hrs. at 110-15°. A catalyst solution containing 0.5 part III in 18 parts PhMe was added to the batch in 3 equal portions 2, 3, and 4 hrs. after the monomer addition The mixture was heated for an addnl. 3 hrs., cooled, and diluted with 58 parts PhMe to give a solution containing 40% solids. Degreased panels of cold-rolled steel, glass, Al, and steel primed with a com. alkyd primer were coated with the copolymer solution, dried at room temperature, and baked for 30 min. at 150° to give adherent, tough coatings. The coatings had good adhesion to steel in a dry state and even after soaking in H2O.

IT 29830-94-2

RL: USES (Uses)

(for coating)

RN 29830-94-2 CAPLUS

CN Methacrylic acid, ester with N-(2-hydroxyethyl)acetamide, polymer with dodecyl methacrylate (8CI) (CA INDEX NAME)

CM 1

CRN 45215-78-9 CMF C16 H30 O2

CM 2

CRN 16328-37-3 CMF C8 H13 N O3

IT 16328-36-2P 16328-37-3P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

RN 16328-36-2 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(formylamino)ethyl ester (9CI) (CA INDEX NAME)

$$^{\rm H_2C}_{||}$$
 O  $_{||}$   $_{||}$   $_{||}$  Me- C- C- O- CH<sub>2</sub>- CH<sub>2</sub>- NH- CHO

RN 16328-37-3 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(acetylamino)ethyl ester (9CI) (CA INDEX NAME)

O 
$$\mathrm{CH_2}$$
 | | | | ACNH- $\mathrm{CH_2}$ - $\mathrm{CH_2}$ - O- C- C- Me

L13 ANSWER 25 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1966:84503 CAPLUS

DN 64:84503

OREF 64:15851b-d

TI Unsaturated sulfonic acid betaines by the reaction of a tertiary amine

with a sultone IN Wieden, Horst; Bahr, Ulrich; Szita, Jeno; Nischk, Guenther PΑ Farbenfabriken Bayer A.-G. SO 6 pp. Patent DT LA Unavailable FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DE 1211156 19660224 DE 1963-F39987 19630614 PT PRAI DE 19630614 The title betaines are pharmaceutical intermediates and antistatic agents AB for polystyrene and poly(vinyl chloride). A mixture of Me2NC2H4OH 100, Et3N 120, and phenothiazine (I) 0.4 in C6H6 600 parts was treated during 2 hrs. at 5-10° with 104 parts CH2: CMeCOCl, stirred 4 hrs., let stand overnight, and filtered. The filtrate was distilled to give CH2: CMeCO2C2H4NMe2 (II), bll 72°. Similarly prepared was CH2:CMeCONH(CH2)3NMe2, b0.005 71-80°. A solution of II 53.4 and I 0.1 in C6H6 150 parts was treated at 45° with a solution of propane 1,3-sultone 40.7 in C6H6 150 parts, stirred 10 hrs., cooled, and filtered to remove 75.4 parts (81%) of CH2:CMeCO2C2H4NMe2+(CH2)3SO3-, m. 147° (EtOH-C6H6). Compds. similarly prepared are tabulated. 5205-98-1 5564-87-4 IT (Derived from data in the 7th Collective Formula Index (1962-1966)) 5205-98-1 CAPLUS RN 5564-87-4 CAPLUS RN

2-Propenoic acid, 2-methyl-, 2-[[[[1-(3-sulfopropyl)-2(1H)-

pyridinylidene]amino]carbonyl]amino]ethyl ester (9CI) (CA INDEX NAME)

CN

5205-96-9P, Ammonium, [3-[3-(2-hydroxyethyl)ureido]propyl]dimethyl IT (3-sulfopropyl), hydroxide, inner salt, methacrylate 5205-97-0P, Ammonium, [p-[3-(2-hydroxyethyl)ureido]phenyl]dimethyl(3-sulfopropyl), hydroxide, inner salt, methacrylate 5205-99-2P, Pyridinium, 4-[3-(2-hydroxyethyl)ureido]-1-(3-sulfopropyl)-, hydroxide, inner salt, methacrylate 5549-90-6P, Morpholinium, 4-[3-[[[2-[(2-methyl-1oxo-2-propenyl)oxy]ethyl]amino]carbonyl]amino]propyl]-4-(4-sulfobutyl)-, inner salt 97740-27-7P, Pyridinium, 2-[3-(3hydroxypropyl)ureido]-1-(3-sulfopropyl)-, hydroxide, inner salt, methacrylate 859803-54-6P, Pyridinium, 2-[3-(2hydroxyethyl)ureido]-1-(3-sulfopropyl)-, inner salt, methacrylate RL: PREP (Preparation) (preparation of) RN5205-96-9 CAPLUS 1-Propanaminium, N, N-dimethyl-N-[3-[[[[2-[(2-methyl-1-oxo-2-CN propenyl)oxy]ethyl]amino]carbonyl]amino]propyl]-3-sulfo-, inner salt (9CI) (CA INDEX NAME)

CN Benzenaminium, N,N-dimethyl-4-[[[[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]amino]carbonyl]amino]-N-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)

RN 5205-99-2 CAPLUS

CN Pyridinium, 4-[[[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]amino]carbonyl]a mino]-1-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)

RN 5549-90-6 CAPLUS

CN Morpholinium, 4-[3-[[[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]amino]carbo nyl]amino]propyl]-4-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)

RN 97740-27-7 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-[[[[1-(3-sulfopropyl)-2(1H)-pyridinylidene]amino]carbonyl]amino]propyl ester (9CI) (CA INDEX NAME)

RN 859803-54-6 CAPLUS

CN Pyridinium, 2-[3-(2-hydroxyethyl)ureido]-1-(3-sulfopropyl)-, inner salt, methacrylate (7CI) (CA INDEX NAME)

## => d L11 1-32 bib abs hitstr

```
ANSWER 1 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN
L11
ΑN
     2006:411818 CAPLUS
DN
     144:432802
     Process for preparation of pyrazole derivatives
TI
     Miyata, Hideo; Murakami, Masatoshi; Ohno, Katsutoshi
IN
PA
     Showa Denko K.K., Japan
SO
     PCT Int. Appl., 56 pp.
     CODEN: PIXXD2
DT
     Patent
LΑ
     English
FAN.CNT 1
```

	PA'	rent :	NO.			KIN	D	DATE			APPL:	ICAT:	ION I	NO.		D	ATE	
PI WO 2006046758		A1 20060504		WO 2005-JP20151					20051027									
		W:	ΑĒ,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	ΒZ,	CA,	CH,
																	GB,	
			GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	KE,	KG,	KM,	KN,	ΚP,	KR,	ΚZ,
		•	LC,	LK,	LR,	LS,	LT,	LU,	LV,	LY,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,
			NA,	NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SĊ,	SD,	SE,	SG,
			SK,	SL,	SM,	SY,	ТJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,
			YU,	ZA,	ZM,	zw	•											
		RW:	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	ΙE,
			IS,	IT,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	ВJ,
			CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG,	BW,	GH,
			GM,	KE,	LS,	MW,	MZ,	NΑ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	ΒY,
		•	•	•	•	RU,	•											
		2006						2006	0615	•	JP 2	005-	3160	71		20	0051	031
PRAI		2004						2004	1029									
	-	2004						2004										
os	CAS	SREAC'	T 14	4:43	2802	; MAI	RPAT	144	:432	802								

GI

Me

I

The present patent relates to a process for the preparation of a blocked AB pyrazole compound with general formula of I [wherein R1 = H or CH3; X = CO or -CO2R2-; R2 = alkylene; Q1 and Q2 = independently H, alkyl, -NH-CO-R3, or -CO-OR3; R3 = alkyl], characterized by comprising reacting a pyrazole compound with an ethylenically unsatd. group-containing isocyanate compound at 0-90 °C. For example, 2-isocyanatoethyl methacrylate was added dropwise to a mixture of 3,5-dimethylpyrazole and BHT, followed by reacting at 30-40 °C for one hour to give II with high purity. The process is useful for efficiently producing a high-purity blocked ethylenically unsatd. pyrazole compound without byproducts.

II

yl)carbonyl]amino]ethyl ester (9CI) (CA INDEX NAME)

RN 217437-48-4 CAPLUS
CN 1H-Pyrazole-3,5-dicarboxylic acid, 1-[[[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]amino]carbonyl]-, diethyl ester (9CI) (CA INDEX NAME)

RN 30674-80-7 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester (CA INDEX NAME)

$$^{\rm H_2C}$$
 O  $^{\parallel}$   $\parallel$   $^{\rm Me-}$  C- C- O- CH<sub>2</sub>- CH<sub>2</sub>- NCO

# RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 2 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2005:1095672 CAPLUS

DN 143:376476

TI Image-recording material and layer as precursors for lithographic printing plates

IN Kakino, Ryuki; Kunita, Kazuto; Oohashi, Hidekazu; Oshima, Yasuhito

PA Fuji Photo Film Co., Ltd., Japan

SO Eur. Pat. Appl., 74 pp. CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

FAN.	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
ΡI	EP 1584485	A2	20051012	EP 2005-7814	20050408		
	EP 1584485	A3	20051109				

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE; SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU US 2005-101530 US 2005271976 A1 20051208 20050408 JP 2006117629 Α 20060511 JP 2005-112346 20050408 EP 1754614 A1 20070221 EP 2006-24915 20050408 R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR US 2007082291 US 2006-538734 20061004 A1 20070412 PRAI JP 2004-115121 Α 20040409 Α JP 2004-275449 20040922 EP 2005-7814 А3 20050408 A3 US 2005-101530 20050408 MARPAT 143:376476

os

An image-recording material containing: (1) a compound having a partial AB structure of C(Q)(C)(X)(Y), with a functional acid group with a pKa of ≤11, a derivative of the acid group, and a group capable of generating the acid group, in which X and Y are groups with N, O, and S, and Q represents an atom selected from C, N, O, and S. The image-recording material contains a support, an image-recording layer, comprised of an IR absorbing compound and a photochromic compound, and a radically polymerizable compound and a radical polymerization inhibitor. The photochromic compound is selected from spiropyrans, naphthopyrans, spiroxazines, fulgides, chromenes, and diarylethylenes.

IT 866487-19-6, Takenate D 110N-2-methacryloyloxyethyl

isocyanate-aronix m 315 copolymer

RL: CPS (Chemical process); DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)

(microcapsules; image-recording material and layer as precursors for lithog. printing plates)

RN 866487-19-6 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester, polymer with Takenate D 110N and (2,4,6-trioxo-1,3,5-triazine-1,3,5(2H,4H,6H)-triyl)tri-2,1-ethanediyl tri-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 40220-08-4 CMF C18 H21 N3 O9

$$H_{2}C = CH - C - O - CH_{2} - CH_{2}$$

$$O \quad CH_{2} - CH$$

CM

CRN 37337-02-3 CMF Unspecified PMS, MAN CCI

STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM

CRN 30674-80-7 CMF .C7 H9 N O3

ANSWER 3 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN Lll ΑN 2005:698206 CAPLUS DN 143:183175 ΤI Polymerizable composition Sugasaki, Atsushi; Kunita, Kazuto IN PA Fuji Photo Film Co., Ltd., Japan SO U.S. Pat. Appl. Publ., 67 pp. CODEN: USXXCO DT Patent English LA FAN.CNT 1 KIND APPLICATION NO. DATE PATENT NO. DATE ----------20050201 PΤ US 2005170285 **A**1 20050804 ·US 2005-46720 JP 2005250438 Α 20050915 JP 2004-245537 20040825 A2 EP 2005-1927 20050131 EP 1564591 20050817 Α3 20061213 EP 1564591 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU CN 1651512 Α 20050810 CN 2005-10007802 20050202 PRAI JP 2004-26049 . A 20040202 JP 2004-245537 Α 20040825 GI

 $^{\mathrm{R1}}$   $^{\mathrm{R3}}$  HOCH2CHAXCO-C=C- $^{\mathrm{R2}}$  I

AB A polymerizable composition for printing plate precursor comprises: (A) a non-acrylic binder polymer having an ethylenically unsatd. bond on a side chain; (B) a neutrally charged compound capable of generating a radical under light or heat; and (C) a compound having an ethylenically unsatd. bond, and a polymerizable composition comprising: (A') a polyurethane resin having an ethylenically unsatd. bond on a side chain, which is a reaction product of an isocyanate compound and a diol compound including a diol compound represented by I (R1-3 = H, monovalent organic group; A = divalent organic residue; X = O, S, NR12; R12 = H, monovalent organic group); (B) a neutrally charged compound capable of generating a radical under light or heat; (C) a compound having an ethylenically unsatd. bond; (D') a 1,4-benzoquinone derivative; and (E') a dye having a maximum absorption wavelength in a region of

from 350 to 450 nm.

IT 455923-17-8P 455923-21-4P 861445-72-9P

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(polymerizable composition for flexog. printing plate containing)

RN 455923-17-8 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-[[[bis(2-hydroxyethyl)amino]carbonyl]amino]ethyl ester, polymer with 1,5-diisocyanatonaphthalene and 3-hydroxy-2-(hydroxymethyl)-2-methylpropanoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 111256-30-5 CMF C11 H20 N2 O5

CM 2

CRN 4767-03-7 CMF C5 H10 O4

CM 3

CRN 3173-72-6 CMF C12 H6 N2 O2

RN 455923-21-4 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-[[[bis(2-hydroxyethyl)amino]carbonyl]amino] ethyl ester, polymer with 2,4-diisocyanato-1-methylbenzene and 3-hydroxy-2-(hydroxymethyl)-2-methylpropanoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 111256-30-5 CMF C11 H20 N2 O5

CM 2

CRN 4767-03-7 CMF C5 H10 O4

$$\begin{array}{c} \text{Me} \\ | \\ \text{HO-CH}_2 - \text{C-CO}_2\text{H} \\ | \\ \text{CH}_2 - \text{OH} \end{array}$$

CRN 584-84-9 CMF C9 H6 N2 O2

RN 861445-72-9 CAPLUS

CN Butanoic acid, 2,2-bis(hydroxymethyl)-, polymer with 2-[[(2,3-dihydroxypropoxy)carbonyl]amino]ethyl 2-methyl-2-propenoate, 1,5-diisocyanatonaphthalené and  $\alpha$ -hydro- $\omega$ -hydroxypoly[oxy(methyl-1,2-ethanediyl)] (9CI) (CA INDEX NAME)

CM 1

CRN 861445-71-8 CMF C10 H17 N O6

CM 2

CRN 25322-69-4 CMF (C3 H6 O)n H2 O CCI IDS, PMS

$$HO = \begin{bmatrix} (C_3H_6) - O \end{bmatrix} n H$$

CM 3

CRN 10097-02-6 CMF C6 H12 O4

$$CH_{2}-OH$$
 $|$ 
 $Et-C-CO_{2}H$ 
 $|$ 
 $CH_{2}-OH$ 

CRN 3173-72-6 CMF C12 H6 N2 O2

SN, TD, TG

AT, BE, CH,

IE, SI, FI, RO,

Α

В

Α

A1

Α

P W

EP 1660438

CN 1829686

JP 2005060393

US 2006241319

US 2003-493455P

WO 2004-JP11019

TW 249523

PRAI JP 2003-283695

AB

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ANSWER 4 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN
L11
     2005:120877
                 CAPLUS
ΑN
     142:198496
DN
     Process for preparing high-purity (meth)acryloyloxyalkyl isocyanates by
TI
     stirring with an epoxide and an amine and subjecting the mixture to
     distillation in the presence of a polymerization
     inhibitor
     Morinaka, Katsutoshi; Hoshi, Kazuyoshi
IN
PA
     Showa Denko K.K., Japan
     PCT Int. Appl., 36 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LA
     English
FAN.CNT 1
                                            APPLICATION NO.
                         KIND
                                DATE
     PATENT NO.
                                            ______
                         _ _ _ _
                                -----
                                            WO 2004-JP11019
                                                                    20040727
                          A1
                                20050210
PΙ
     WO 2005012237
            AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK,
             LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO,
             NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ,
             TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
             AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
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20060531

20060906

20060221

20050310

20061026 20030731

20030808

20040727

EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,

A process for preparing high-purity (meth)acryloyloxyalkyl isocyanates (e.g.,

EP 2004-748173

CN 2004-80021528

TW 2004-93122764

JP 2004-225656 US 2006-566178

DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,

MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR

20040727

20040727

20040729

20040802

20060127

methacryloyloxyethyl isocyanate), having a very small hydrolyzable chlorine content, is described in which the (meth)acryloyloxyalkyl isocyanate containing a hydrolyzable chlorine is subjected to a mixing treatment with an epoxy compound and an amine (e.g., 2-ethyl-4-methylimidazole) at 110-160° to prepare a mixture and preparing a high-purity (meth)acryloyloxyalkyl isocyanate from the resulting mixture by subjecting it to distillation in the presence of a polymerization inhibitor (e.g., phenothiazine).

IT 30674-80-7P

RL: PEP (Physical, engineering or chemical process); PUR (Purification or recovery); PYP (Physical process); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)

(process for preparing high-purity (meth)acryloyloxyalkyl isocyanates by stirring with epoxide and amine and subjecting mixture to distillation in presence of polymerization inhibitor)

RN 30674-80-7 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester (CA INDEX NAME)

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 5 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2005:11686 CAPLUS

DN 142:95239

TI Double bond-containing carbodimides and urethodiones, their derivatives and manufacture, crosslinking agents containing them, and their crosslinked polymers and applications

IN Aizawa, Wakana; Takada, Masakazu; Miura, Hidetoshi; Hyodo, Kenji; Ikegami, Koshiro; Fujita, Rei

PA Mitsubishi Paper Mills, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 38 pp. CODEN: JKXXAF

DT Patent

LA Japanese

FAN CNT 1

F.	AN.CNT I				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
Ρ	I JP 2005002079	Α	20050106	JP 2003-193399	20030708
Ρ	RAI JP 2002-200322	Α	20020709		
	JP 2002-304466	Α	20021018		
	JP 2002-340421	Α	20021125		
	JP 2002-351679	Α	20021203		
	JP 2002-368722	A	.20021219		
	JP 2002-376484 .	A	20021226		
	JP 2003-3105	Α	20030109	•	
	JP 2003-29004	Α	20030206		
	JP 2003-111573	A	20030416		
0	S MARPAT 142:95239				
G	· ·			•	

$$H_{2}C = C$$
 $C = 0$ 
 $C = C$ 
 $C = CH_{2}$ 
 $C = CH_{2}$ 

The carbodiimides, urethodiones, and their derivs. are CH2:CR1CO2(CH2)lN:C:N(CH2)lCO2CR1:CH2 (I), II, and CH2:CR3CO2(CH2)nNHC[O(COQ)rCOCR3:CH2]:N(CH2)nCO2CR3:CH2 and III (R1-R4 = H, alkyl; Q = divalent linkage; l, m, n, p = 2-6; r = 0-5), resp. The polymers are useful for ion-conductive compns. for electrochem. devices, e.g., batteries, capacitors. Thus, Karenzu MOI (IV; 2-methacryloyloxyethyl isocyanate) was carbodiimized in the presence of p-nitrophenol as a thermal polymerization inhibitor and 3-methyl-1-phenyl-2-phospholene 1-oxide to give I (R1 = Me, l = 2), which was polymerized with NK Ester A 9300 and IV in nonaq. electrolytic solution comprising LiPF6, ethylene carbonate, and CO(OEt)2 to give a gel showing ion conductivity 4.9 + 10-3 S/cm at room temperature and no degradation after heating

at 80° for 14 days. A secondary Li battery using the gel showed good durability.

I

II

IT 817619-88-8DP, tetraethylammonium complex, tetrafluoroboratecontaining

RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (double-layer capacitor electrolyte; manufacture of double bond-containing carbodimides and urethodiones as crosslinking agents for crosslinked polymer gels as ionic conductors for electrochem. devices)

RN 817619-88-8 CAPLUS

CN 2-Propenoic acid, 2-methyl-, (2,4-dioxo-1,3-diazetidine-1,3-diyl)di-2,1-ethanediyl ester, polymer with 2-isocyanatoethyl 2-methyl-2-propenoate and methanetetraylbis(nitrilo-2,1-ethanediyl) bis(2-methyl-2-propenoate) (9CI) (CA INDEX NAME)

CM 1

CRN 817619-69-5 CMF C14 H18 N2 O6

CRN 817619-67-3 CMF C13 H18 N2 O4

CM 3

CRN 30674-80-7 CMF C7 H9 N O3

IT 88007-27-6DP, carbodiimide or urethodione derivative 817619-79-7P 817619-80-0P 817619-83-3DP,

carbodiimide or urethodione derivative

RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacture of double bond-containing carbodimides and urethodiones as crosslinking agents for crosslinked polymer gels as ionic conductors for electrochem. devices)

RN 88007-27-6 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 30674-80-7 CMF C7 H9 N O3

$$\begin{array}{c|c} ^{\rm H_2C} & {\rm O} \\ \parallel & \parallel \\ {\rm Me^- \, C^- \, C^- \, O^- \, CH_2^- \, CH_2^- \, NCO} \end{array}$$

RN 817619-79-7 CAPLUS

CN 2-Propenoic acid, 2-methyl-, methanetetraylbis(nitrilo-2,1-ethanediyl) ester, polymer with 2-isocyanatoethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 817619-67-3 CMF C13 H18 N2 O4

CRN 30674-80-7 CMF C7 H9 N O3

RN 817619-80-0 CAPLUS

CN 2-Propenoic acid, 2-methyl-, methanetetraylbis(nitrilo-2,1-ethanediyl) ester, polymer with 2-isocyanatoethyl 2-methyl-2-propenoate and (2,4,6-trioxo-1,3,5-triazine-1,3,5(2H,4H,6H)-triyl)tri-2,1-ethanediyl tri-2-propenoate (9CI) (CA INDEX NAME)

CM 1 .

CRN 817619-67-3 CMF C13 H18 N2 O4

CM 2

CRN 40220-08-4 CMF C18 H21 N3 O9

CM 3

CRN 30674-80-7 CMF C7 H9 N O3

RN 817619-83-3 CAPLUS CN 2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester, polymer with  $\alpha$ -(1-oxo-2-propenyl)- $\omega$ -methoxypoly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

CM 1

CRN 32171-39-4 CMF (C2 H4 O)n C4 H6 O2

$$H_2C = CH - C - CH_2 - CH_2 - CH_2 - OMe$$

CRN 30674-80-7 CMF C7 H9 N O3

IT 30674-80-7

> RL: RCT (Reactant); RACT (Reactant or reagent) (manufacture of double bond-containing carbodimides and urethodiones as crosslinking agents for crosslinked polymer gels as ionic conductors for electrochem. devices)

RN 30674-80-7 CAPLUS

2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester (CA INDEX NAME) CN

IT 817619-79-7DP, Li complex, hexafluorophosphate-containing 817619-80-0DP, Li complex, hexafluorophosphate-containing 817619-86-6DP, carbodiimide or urethodione derivative, Li complex, hexafluorophosphate-containing RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (secondary Li battery electrolyte; manufacture of double bond-containing carbodimides and urethodiones as crosslinking agents for crosslinked polymer gels as ionic conductors for electrochem. devices)

RN 817619-79-7 CAPLUS

2-Propenoic acid, 2-methyl-, methanetetraylbis(nitrilo-2,1-ethanediyl) CN ester, polymer with 2-isocyanatoethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 817619-67-3 CMF C13 H18 N2 O4

CM2

CRN 30674-80-7 CMF C7 H9 N O3

RN 817619-80-0 CAPLUS

CN 2-Propenoic acid, 2-methyl-, methanetetraylbis(nitrilo-2,1-ethanediyl) ester, polymer with 2-isocyanatoethyl 2-methyl-2-propenoate and (2,4,6-trioxo-1,3,5-triazine-1,3,5(2H,4H,6H)-triyl)tri-2,1-ethanediyl tri-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 817619-67-3 CMF C13 H18 N2 O4

CM 2

CRN 40220-08-4 CMF C18 H21 N3 O9

$$H_{2}C = CH - C - O - CH_{2} - CH_{2}$$

$$CH_{2} - CH_{2} - CH_{2$$

CM 3

CRN 30674-80-7 CMF C7 H9 N O3

RN 817619-86-6 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester, polymer with  $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -methoxypoly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

CM 1

CRN 30674-80-7 CMF C7 H9 N O3

CM . 2

CRN 26915-72-0 CMF (C2 H4 O)n C5 H8 O2

CCI PMS

$$H_2C$$
 O  $Me-C-C-CH_2-CH_2$  OMe

L11 ANSWER 6 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2004:960280 CAPLUS

DN 141:396555

TI  $\alpha$ -cyanoacrylate adhesive composition

IN Sugimae, Kazuo; Okano, Seiji; Nakafuchi, Akihiro; Murata, Norio; Murakoshi, Hiroshi; Nagasawa, Shinji

PA Koatsu Gas Kogyo Co., Ltd., Japan; NTT Advanced Technology Corp.

SO Jpn. Kokai Tokkyo Koho, 7 pp. CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
	-'					
PI JP 2004315710	Α	20041111	JP 2003-113697	20030418		
PRAI JP 2003-113697		20030418				

Title adhesive composition having high gluing durability on glass surface and retention stability is composed of 100 parts  $\alpha$ -cyanoacrylate, 1-30 parts reaction product of a OH-terminated linear polymer and a compound containing C-C unsatd. bonds and isocyanate group in the mol., and 5-40 parts polymeric particles that do not dissolved in  $\alpha$ -cyanoacrylate. Thus, ethyl- $\alpha$ -cyanoacrylate 100 parts were mixed with 10 weight% denatured polyester prepared from OH-terminated polyester and 2-isocyanate Et methacrylate and 20 weight% polyethylene powder in the presence of polymerization inhibitors to receive an adhesive composition having adhesion strength of 7.6 N/mm.

30674-80-7D, 2-Isocyanatoethyl methacrylate, polymers with
OH-terminated polyesters or polyurethanes
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

 $(\alpha\text{-cyanoacrylate adhesive composition})$ 

RN 30674-80-7 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester (CA INDEX NAME)

$$^{\rm H_2C}$$
 O  $^{\parallel}$   $^{\parallel}$   $^{\rm Me-}$  C- C- O- CH<sub>2</sub>- CH<sub>2</sub>- NCO

L11 ANSWER 7 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2004:32700 CAPLUS

DN 140:95665

TI Photocurable resin made of acrylic resin and photosensitive isocyanate and

composition and coating containing the resin

IN Sugawara, Atsushi; Hamada, Keiji; Kondo, Shuichi; Suzuki, Hiroshi

PA Hitachi Chemical Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE
PI JP 2004010772 A 20040115 JP 2002-166915 20020607

PRAI JP 2002-166915 20020607

AB The photocurable resin is that obtained by (1) polymerization of (a) a compound having 1 polymerizable unsatd. bonding, which is substituted with 1 glycidyl group and (b) a compound having 1 unsatd. bonding (except the former compound), (2) addition reaction of other compound having 1 carboxy

and 1 unsatd. bonding, and (3) reaction of the resulting acrylic compound and an isocyanate substituted with photosensitive functional group. The photocurable composition is that containing the photocurable resin and an

solvent, a photopolymerizable monomer, a polymerization inhibitor, and/or a photopolymn. initiator. The coating, showing good adhesion to substrate and good hardness, scratch resistance, and solvent resistance, is that contains the composition. Thus, a copolymer of glycidyl methacrylate 300, 2-hydroxyethyl acrylate 200, Et acrylate 200, and 2-ethylhexyl acrylate 300 parts was esterified with 73 parts acrylic acid and mixed with 400 parts tripropylene glycol diacrylate (Aronix M 220), PPh3, and hydroquinone monomethyl ether then 500 parts of the resulted composition was mixed with dibutyltin dilaurate, 105 parts 500:350 isophorone diisocyanate-2-hydroxyethyl acrylate adduct, and 45 parts triethylene glycol diacrylate to give the photocurable composition. Then, the composition was applied on glass plates and UV-irradiated to give coatings showing pencil hardness F and good resistance to stain of oil inks.

30674-80-7DP, reaction products with glycidyl-containing resin acrylate and acrylic monomers

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(photocurable coating containing resin made of acrylic resin and photosensitive isocyanate)

RN 30674-80-7 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester (CA INDEX NAME)

L11 ANSWER 8 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2003:525441 CAPLUS

DN 139:102478

TI Double bond-containing liquid polymer compositions and their manufacture for one-component coatings

IN Matsuda, Yoshitaka; Kimura, Sachiyo; Egashira, Yoshihiro; Obayashi, Nobuo

PA Kanto Denka Kogyo Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 17 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

-----PI JP 2003192749 A 20030709 JP 2002-254778 20020830

PRAI JP 2001-261606 A 20010830 JP 2001-261607 A 20010830

AB The compns. for antisoiling water- and oil-repellent coatings with high resistance to chems., weather, etc., contain double bond-containing polymers and reactive diluents and do not have gelation components. The compns. are manufactured by (1) inhibiting or suppressing polymerization of the polymers and

the diluents to coexist in liquid state without gelation or (2) mixing the polymers in organic solvents with the diluents. Formation of F-containing copolymer coatings by photocuring or heat-curing liquid compns. containing 0-10%

(based on total compns.) organic solvents, double bond- and F-containing copolymers, and reactive diluents, is also claimed. Thus, vinylidene fluoride, tetrafluoroethylene, Et vinyl ether, hydroxybutyl vinyl ether, CH2:CMeCO2C3H6SiMe2(OSiMe2)44OSiMe3 were reacted to give a copolymer, which was reacted with 2-isocyanatoethyl methacrylate to give a double bond-containing polymer. Then, O gas was introduced to a mixture containing a

Bu

IT

acetate solution of the polymer, 1,6-hexanediol diacrylate (I), and a polymerization inhibitor while removing Bu acetate to give a transparent solution showing good compatibility of the polymer and I. 359400-57-0DP, butyldimethylsilyl ether 359400-60-5DP,

trimethylsilyl ether 557062-03-0DP, trimethylsilyl ether RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(comprised of actual and assumed monomers; double bond-containing liquid polymer compns. containing reactive diluents and their manufacture for one-component photocurable or heat-curable coatings)

RN 359400-57-0 CAPLUS

CN Silanediol, dimethyl-, polymer with chlorotrifluoroethene, 1-(ethenyloxy)butane, (ethenyloxy)butanol and ethoxyethene, [2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]carbamate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 96571-20-9 CMF C7 H11 N O4

CM 2

CRN 359400-56-9

CMF (C6 H12 O2 . C6 H12 O . C4 H8 O . C2 H8 O2 Si . C2 Cl F3)  $\times$ 

CCI PMS

CM 3

CRN 42978-84-7 CMF C6 H12 O2 CCI IDS

n-BuO-CH-CH2

CRN 1066-42-8 CMF C2 H8 O2 Si

CM 5

CRN 111-34-2 CMF C6 H12 O

$$n-BuO-CH--CH_2$$

CM 6

CRN 109-92-2 CMF C4 H8 O

$$H_3C-CH_2-O-CH=CH_2$$

CM 7

CRN 79-38-9 CMF C2 Cl F3

CM 1

CRN 96571-20-9 CMF C7 H11 N O4

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ & || & || \\ & \text{HO}_2\text{C} - \text{NH} - \text{CH}_2 - \text{CH}_2 - \text{O} - \text{C} - \text{C} - \text{Me} \end{array}$$

CRN 359400-59-2

CMF (C6 H12 O2 . C4 H8 O . C2 H8 O2 Si . C2 H2 F2 . C2 F4)  $\mathbf{x}$ 

CCI PMS

CM 3

CRN 42978-84-7

CMF C6 H12 O2

CCI IDS

$$n-BuO-CH \longrightarrow CH_2$$

D1-OH

CM 4

CRN 1066-42-8

CMF C2 H8 O2 Si

CM 5

CRN 116-14-3

CMF C2 F4

CM 6

CRN 109-92-2

CMF C4 H8 O

$$H_3C-CH_2-O-CH=-CH_2$$

CM 7

CRN 75-38-7

CMF C2 H2 F2

RN 557062-03-0 CAPLUS

CN 2-Propenoic acid, methyl ester, polymer with chlorotrifluoroethene, 1,1-difluoroethene, dimethylsilanediol, (ethenyloxy)butanol and tetrafluoroethene, [2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]carbamate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 96571-20-9 CMF C7 H11 N O4

CM 2

CRN 366014-73-5 CMF (C6 H12 O2 . C4 H6 O2 . C2 H8 O2 Si . C2 H2 F2 . C2 C1 F3 . C2 F4)x CCI PMS

CM 3

CRN 42978-84-7 CMF C6 H12 O2 CCI IDS

n-BuO-CH-CH2

D1-OH

CM 4

CRN 1066-42-8 CMF C2 H8 O2 Si

$$\begin{array}{c} \text{OH} \\ | \\ \text{H}_3\text{C--}\sin\text{--}\text{CH}_3 \\ | \\ \text{OH} \end{array}$$

CM 5

CRN 116-14-3 CMF C2 F4

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CM
                96-33-3
           CRN
          CMF
                C4 H6 O2
MeO-C-CH-CH2
           CM
           CRN
                79-38-9
           CMF
                C2 C1 F3
    CF<sub>2</sub>
C1-C-F
           CM
                8
           CRN
                75-38-7
           CMF
                C2 H2 F2
  CH<sub>2</sub>
  - C-- F
     557061-95-7P 557061-97-9P 557062-00-7P
IT
     557062-04-1DP, trimethylsilyl ether 557062-07-4P
     557062-10-9P
     RL: IMF (Industrial manufacture); TEM (Technical or engineered material
     use); PREP (Preparation); USES (Uses)
         (crosslinked, coating; double bond-containing liquid polymer compns.
containing
        reactive diluents and their manufacture for one-component photocurable or
        heat-curable coatings)
RN
     557061-95-7 CAPLUS
     Butanol, (ethenyloxy)-, polymer with 1,1-difluoroethene,
CN
     \alpha-[dimethyl[3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]silyl]-\omega-
     \hbox{\tt [(trimethylsilyl)oxy]poly[oxy(dimethylsilylene)], ethoxyethene and }
     tetrafluoroethene, [2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]carbamate,
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graft, polymer with Ebecryl 810 and  $\alpha$ -hydro- $\omega$ -hydroxypoly(oxy-

1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1)

CM 1

CRN 79586-49-5

CMF Unspecified

CCI PMS, MAN

(CA INDEX NAME)

(9CI)

#### \*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 2

CRN 28961-43-5

CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C15 H20 O6

CCI PMS

PAGE 1-A

PAGE 1-B

CM 3

CRN 359400-44-5

CMF C7 H11 N O4 . x (C6 H12 O2 . C4 H8 O . (C2 H6 O Si)n C12 H26 O3 Si2 . C2 H2 F2 . C2 F4)x

CM 4

CRN 96571-20-9 CMF C7 H11 N O4

$$\begin{array}{c|c} & {\rm O} & {\rm CH_2} \\ & || & || \\ {\rm HO_2C-NH-CH_2-CH_2-O-C-C-Me} \end{array}$$

CM 5

CRN 304690-98-0

CMF (C6 H12 O2 . C4 H8 O . (C2 H6 O Si)n C12 H26 O3 Si2 . C2 H2 F2 .

C2 F4)x

CCI PMS

CM 6

CRN 123109-42-2

CMF (C2 H6 O Si)n C12 H26 O3 Si2

CCI PMS

CRN 42978-84-7 CMF C6 H12 O2

CCI IDS

D1-OH

CM 8

CRN 116-14-3 CMF C2 F4

ĊM 9

CRN 109-92-2 CMF C4 H8 O

$$_{\rm H_3C-CH_2-O-CH=CH_2}$$

CM 10

CRN 75-38-7 CMF C2 H2 F2

$$^{\text{CH}_2}_{\text{F-C-F}}$$

RN 557061-97-9 CAPLUS CN 2-Propenoic acid, 1

2-Propenoic acid, 1,6-hexanediyl ester, polymer with  $\alpha$ - (butyldimethylsilyl)- $\omega$ -[[dimethyl[3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]silyl]oxy]poly[oxy(dimethylsilylene)] graft polymer with chlorotrifluoroethene, 1-(ethenyloxy)butane, (ethenyloxy)butanol and ethoxyethene [2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]carbamate, and Ebecryl 810 (9CI) (CA INDEX NAME)

CRN 79586-49-5 CMF Unspecified CCI PMS, MAN

## \*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 2

CRN 13048-33-4 CMF C12 H18 O4

CM 3

CRN 557061-96-8 CMF C7 H11 N O4 . x (C6 H12 O2 . C6 H12 O . C4 H8 O . (C2 H6 O Si)n C15 H32 O3 Si2 . C2 C1 F3)x

CM 4

CRN 96571-20-9 CMF C7 H11 N O4

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ || & || \\ \text{HO}_2\text{C}-\text{NH}-\text{CH}_2-\text{CH}_2-\text{O}-\text{C}-\text{C}-\text{Me} \end{array}$$

CM 5

CRN 351525-36-5 CMF (C6 H12 O2 . C6 H12 O . C4 H8 O . (C2 H6 O Si)n C15 H32 O3 Si2 . C2 C1 F3)x

CCI PMS

CM 6

CRN 149925-73-5 CMF (C2 H6 O Si)n C15 H32 O3 Si2 CCI PMS

CM '

CRN 42978-84-7 CMF C6 H12 O2

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n-BuO-CH-CH2
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D1-OH

CM 8

CRN 111-34-2 CMF C6 H12 O

n-BuO-CH-CH2

CM 9

CRN 109-92-2 CMF C4 H8 O

 $H_3C-CH_2-O-CH-CH_2$ 

CM 10

CRN 79-38-9 CMF C2 C1 F3

CF<sub>2</sub> || C1-C-F

RN 557062-00-7 CAPLUS
CN Butanol, (ethenyloxy)-, polymer with 1,1-difluoroethene,
α-[dimethyl[3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]silyl]-ω[(trimethylsilyl)oxy]poly[oxy(dimethylsilylene)], 1-(ethenyloxy)butane and tetrafluoroethene, [2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]carbamate,
graft, polymer with Ebecryl 810 and α-hydro-ω-[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (9CI) (CA INDEX NAME)

CM 1

CRN 79586-49-5 CMF Unspecified CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 2

CRN 28961-43-5 CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C15 H20 O6 CCI PMS

$$\mathbf{H}_{2}\mathbf{C} = \mathbf{C}\mathbf{H} - \mathbf{C} - \mathbf{O} - \mathbf{C}\mathbf{H}_{2} - \mathbf{C}\mathbf{H}_$$

PAGE 1-B

CM 3

CRN 557061-99-1 CMF C7 H11 N O4 . x (C6 H12 O2 . C6 H12 O . (C2 H6 O Si)n C12 H26 O3 Si2 . C2 H2 F2 . C2 F4)x

CM 4

CRN 96571-20-9 CMF C7 H11 N O4

$$\begin{array}{c|c} & {\rm O} & {\rm CH_2} \\ & || & || \\ {\rm HO_2C-NH-CH_2-CH_2-O-C-C-Me} \end{array}$$

CM 5

CRN 557061-98-0

CMF (C6 H12 O2 . C6 H12 O . (C2 H6 O Si)n C12 H26 O3 Si2 . C2 H2 F2 . C2 F4)x

CCI PMS

CM 6

CRN 123109-42-2

CMF (C2 H6 O Si)n C12 H26 O3 Si2

CCI PMS

CRN 42978-84-7

CMF C6 H12 O2

CCI IDS

 $n-BuO-CH \longrightarrow CH_2$ 

D1-OH

CM 8

CRN 116-14-3 CMF C2 F4

F- C== C- F

CM 9

CRN 111-34-2 CMF C6 H12 O

 $n-BuO-CH \longrightarrow CH_2$ 

CM 10

CRN 75-38-7 CMF C2 H2 F2

CH<sub>2</sub> || F-- C-- F

RN 557062-04-1 CAPLUS

CN 2-Propenoic acid, methyl ester, polymer with chlorotrifluoroethene,
1,1-difluoroethene, dimethylsilanediol, (ethenyloxy)butanol and
tetrafluoroethene, [2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]carbamate,
graft, polymer with Ebecryl 810 and α-hydro-ω-[(1-oxo-2propenyl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)1,3-propanediol (3:1) (9CI) (CA INDEX NAME)

CM 1

CRN 79586-49-5 CMF Unspecified CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CRN 28961-43-5

(C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C15 H2O O6

CCI PMS

PAGE 1-A

PAGE 1-B

$$-CH_2 \longrightarrow 0 - C - CH = CH_2$$

CM 3

CRN 557062-03-0

CMF C7 H11 N O4 . x (C6 H12 O2 . C4 H6 O2 . C2 H8 O2 Si . C2 H2 F2 . C2 C1 F3 . C2 F4)x

CM 4

CRN 96571-20-9 CMF C7 H11 N O4

$$\begin{array}{c|c} & {\rm O} & {\rm CH_2} \\ & || & || \\ {\rm HO_2C-NH-CH_2-CH_2-O-C-C-Me} \end{array}$$

CM 5

CRN 366014-73-5

CMF (C6 H12 O2 . C4 H6 O2 . C2 H8 O2 Si . C2 H2 F2 . C2 Cl F3 . C2

F4)x

CCI PMS

CM 6

CRN 42978-84-7

CMF C6 H12 O2

CCI IDS

$$n-BuO-CH-CH_2$$

D1-OH

CM 7

CRN 1066-42-8 CMF C2 H8 O2 Si

CM 8

CRN 116-14-3 CMF C2 F4

CM :

CRN 96-33-3 CMF C4 H6 O2

$$\begin{array}{c} \text{O} \\ || \\ \text{MeO---} \text{C----} \text{CH-----} \text{CH}_2 \end{array}$$

CM 10

CRN 79-38-9 CMF C2 C1 F3

CM 11

CRN 75-38-7 CMF C2 H2 F2

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CH<sub>2</sub>
||
F-- C-- F
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RN 557062-07-4 CAPLUS

CN 2-Propenoic acid, 1,6-hexanediyl ester, polymer with 1,1-difluoroethene
graft polymer with α-(ethenyldimethylsilyl)-ω[(ethenyldimethylsilyl)oxy]poly[oxy(dimethylsilylene)],
(ethenyloxy)butanol, ethoxyethene and tetrafluoroethene
[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]carbamate, and Ebecryl 810 (9CI)
(CA INDEX NAME)

CM 1

CRN 79586-49-5 CMF Unspecified CCI PMS, MAN

#### \*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 2

CRN 13048-33-4 CMF C12 H18 O4

CM 3

CRN 557062-06-3
CMF C7 H11 N O4 . x (C6 H12 O2 . C4 H8 O . (C2 H6 O Si)n C8 H18 O Si2 . C2 H2 F2 . C2 F4)x

CM 4

CRN 96571-20-9 CMF C7 H11 N O4

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ & || & || \\ \text{HO}_2\text{C} - \text{NH} - \text{CH}_2 - \text{CH}_2 - \text{O} - \text{C} - \text{C} - \text{Me} \end{array}$$

CM 5

CRN 557062-05-2

CMF (C6 H12 O2 . C4 H8 O . (C2 H6 O Si)n C8 H18 O Si2 . C2 H2 F2 . C2 F4)x

CCI PMS

CM 6

CRN 59942-04-0

CMF (C2 H6 O Si)n C8 H18 O Si2

CCI PMS

CRN 42978-84-7 CMF C6 H12 O2 IDS

CCI

n-BuO-CH-CH2

D1-OH

CM 8

CRN 116-14-3 CMF C2 F4

CM 9

109-92-2 CRN CMF C4 H8 O

 $_{\rm H_3C-CH_2-O-CH=CH_2}$ 

CM 10

CRN 75-38-7 C2 H2 F2 CMF

557062-10-9 CAPLUS RN2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with CN 1,1-difluoroethene,  $\alpha$ -(ethenyldimethylsilyl)- $\omega$ -[(ethenyldimethylsilyl)oxy]poly[oxy(dimethylsilylene)], ethoxyethene and tetrafluoroethene, [2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]carbamate, graft, polymer with Ebecryl 810 and  $\alpha$ -hydro- $\omega$ -[(1-oxo-2propenyl)oxylpoly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (9CI) (CA INDEX NAME)

CRN 79586-49-5 CMF Unspecified

CCI PMS, MAN

## STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM

CRN 28961-43-5

CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C15 H20 O6

CCI PMS

PAGE 1-A

PAGE 1-B

CM

CRN 557062-09-6

C7 H11 N O4 .  $\times$  (C6 H10 O3 . C4 H8 O . (C2 H6 O Si)n C8 H18 O Si2 . CMF C2 H2 F2 . C2 F4)x

CM

96571-20-9 CRN

CMF C7 H11 N O4

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ || & || \\ \text{HO}_2\text{C} - \text{NH} - \text{CH}_2 - \text{CH}_2 - \text{O} - \text{C} - \text{C} - \text{Me} \end{array}$$

CM

557062-08-5 CRN

(C6 H10 O3 . C4 H8 O . (C2 H6 O Si)n C8 H18 O Si2 . C2 H2 F2 . CMF

C2 F4)x

CCI PMS .

CRN 59942-04-0

CMF (C2 H6 O Si)n C8 H18 O Si2

CCI PMS

CM 7

CRN 868-77-9 CMF C6 H10 O3

$$^{\rm H_2C}_{\parallel}$$
  $^{\rm O}_{\parallel}$   $^{\rm H}_{\parallel}$   $^{\rm Me-}$   $^{\rm C-}$   $^{\rm C-}$   $^{\rm O-}$   $^{\rm CH_2-}$   $^{\rm CH_2-}$   $^{\rm OH}$ 

CM 8

CRN 116-14-3 CMF C2 F4

CM 9

CRN 109-92-2 CMF C4 H8 O

$$_{\mathrm{H_3C-CH_2-O-CH}}$$

CM 10

CRN 75-38-7 CMF C2 H2 F2

IT 30674-80-7, 2-Isocyanatoethyl methacrylate
RL: TEM (Technical or engineered material use); USES (Uses)
(diluent; double bond-containing liquid polymer compns. containing reactive diluents and their manufacture for one-component photocurable or

```
2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester (CA INDEX NAME)
CN
 H<sub>2</sub>C
      0
Me-C-C-O-CH2-CH2-NCO
     359400-44-5P 557061-89-9P 557061-91-3P
     557061-93-5P 557061-94-6P 557061-96-8P
     557061-99-1P 557062-02-9P 557062-06-3P
     557062-09-6P
     RL: IMF (Industrial manufacture); TEM (Technical or engineered material
     use); PREP (Preparation); USES (Uses)
         (double bond-containing liquid polymer compns. containing reactive diluents
and
        their manufacture for one-component photocurable or heat-curable coatings)
RN
     359400-44-5 CAPLUS
CN
     Butanol, (ethenyloxy)-, polymer with 1,1-difluoroethene,
     \alpha-[dimethyl[3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]silyl]-\omega-
     [(trimethylsilyl)oxy]poly[oxy(dimethylsilylene)], ethoxyethene and
     tetrafluoroethene, [2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]carbamate,
     graft (9CI)
                  (CA INDEX NAME)
     CM
           1
     CRN
          96571-20-9
     CMF
          C7 H11 N O4
                          CH<sub>2</sub>
HO_2C-NH-CH_2-CH_2-O-C-C-Me
     CM
           2
     CRN
          304690-98-0
     CMF
           (C6 H12 O2 . C4 H8 O . (C2 H6 O Si)n C12 H26 O3 Si2 . C2 H2 F2 . C2
           F4)x
     CCI
          PMS
           CM
                3
          CRN
                123109-42-2
                (C2 H6 O Si)n C12 H26 O3 Si2
           CMF
           CCI
                PMS
 H<sub>2</sub>C
                                Me
      0
                    Me
                                         O-SiMe3
           -(CH<sub>2</sub>)<sub>3</sub>
                    Me
                                Me
```

heat-curable coatings)

30674-80-7 CAPLUS

CM

CRN

CMF CCI 42978-84-7

C6 H12 O2

IDS

RN

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n-BuO-CH \longrightarrow CH_2
```

D1-OH

CM 5

CRN 116-14-3 CMF C2 F4

CM 6

CRN 109-92-2 CMF C4 H8 O

$$_{\mathrm{H_3C-CH_2-O-CH}}$$
  $_{\mathrm{CH_2}}$ 

CM 7

CRN 75-38-7 CMF C2 H2 F2

RN 557061-89-9 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with butyl 2-propenoate and methyl 2-methyl-2-propenoate, [2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]carbamate (9CI) (CA INDEX NAME)

CM 1

CRN 96571-20-9 CMF C7 H11 N O4

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ || & || \\ \text{HO}_2\text{C-NH-CH}_2\text{-CH}_2\text{-O-C-C-Me} \end{array}$$

CM 2

CRN 25951-39-7

CMF (C7 H12 O2 . C6 H10 O3 . C5 H8 O2) $\times$ 

CCI PMS

CRN 868-77-9 CMF C6 H10 O3

CM 4

CRN 141-32-2 CMF C7 H12 O2

CM 5

CRN 80-62-6 CMF C5 H8 O2

$$\begin{array}{c|c} ^{H_2C} & o \\ \parallel & \parallel \\ \text{Me-} & \text{C-} & \text{C-} & \text{OMe} \end{array}$$

RN 557061-91-3 CAPLUS

CN 2-Propenoic acid, ethyl ester, polymer with (ethenyloxy)cyclohexane, ethoxyethene and 3-(2-propenyloxy)-1,2-propanediol, [2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]carbamate (9CI) (CA INDEX NAME)

CM :

CRN 96571-20-9 CMF C7 H11'N O4

$$\begin{array}{c|c} & {\rm O} & {\rm CH_2} \\ & || & || \\ {\rm HO_2C-NH-CH_2-CH_2-O-C-C-Me} \end{array}$$

CM 2

CRN 557061-90-2

CMF (C8 H14 O . C6 H12 O3 . C5 H8 O2 . C4 H8 O) x

CCI PMS

·CM 3

CRN 2182-55-0 CMF C8 H14 O

CRN 140-88-5 CMF C5 H8 O2

CM 5

CRN 123-34-2 CMF C6 H12 O3

CM 6

CRN 109-92-2 CMF C4 H8 O

$$_{\rm H_3C-CH_2-O-CH=CH_2}$$

RN 557061-93-5 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2,2,2-trifluoroethyl ester, polymer with (ethenyloxy)butanol and 1-(ethenyloxy)-2-methylpropane, [2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]carbamate (9CI) (CA INDEX NAME)

CM 1

CRN 96571-20-9 CMF C7 H11 N O4

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ || & || \\ \text{HO}_2\text{C}-\text{NH}-\text{CH}_2-\text{CH}_2-\text{O}-\text{C}-\text{C}-\text{Me} \end{array}$$

CM 2

CRN 557061-92-4

CMF (C6 H12 O2 . C6 H12 O . C6 H7 F3 O2) x

CCI PMS

CM 3

CRN 42978-84-7 CMF C6 H12 O2 CCI IDS

 $n-BuO-CH \longrightarrow CH_2$ 

D1-OH

CM 4

CRN 352-87-4 CMF C6 H7 F3 O2

 $\begin{array}{c|c} \text{O} & \text{CH}_2 \\ || & || \\ \text{F}_3\text{C}-\text{CH}_2-\text{O}-\text{C}-\text{C}-\text{Me} \end{array}$ 

CM 5

CRN 109-53-5 CMF C6 H12 O

i-BuO-CH-CH2

RN 557061-94-6 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with methyl 2-methyl-2-propenoate and 2,2,2-trifluoroethyl 2-methyl-2-propenoate, [2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]carbamate (9CI) (CA INDEX NAME)

CM 1

CRN 96571-20-9 CMF C7 H11 N O4

 $\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ || & || \\ \text{HO}_2\text{C} - \text{NH} - \text{CH}_2 - \text{CH}_2 - \text{O} - \text{C} - \text{C} - \text{Me} \end{array}$ 

CM 2

CRN 104570-29-8

CMF (C6 H10 O3 . C6 H7 F3 O2 . C5 H8 O2)  $\times$ 

CCI PMS

CM 3

CRN 868-77-9 CMF C6 H10 O3

CRN 352-87-4 CMF C6 H7 F3 O2

CM 5

CRN 80-62-6 CMF C5 H8 O2

$$^{\rm H_2C}_{\parallel}$$
 0  $^{\rm H_2C}_{\rm Me}$  Me- C- C- OMe

RN 557061-96-8 CAPLUS CN Butanol, (ethenyloxy)-, polymer with  $\alpha$ -(butyldimethylsilyl)- $\omega$ [[dimethyl[3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]silyl]oxy]poly[oxy(dimethylsilylene)], chlorotrifluoroethene, 1-(ethenyloxy)butane and ethoxyethene, [2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]carbamate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 96571-20-9 CMF C7 H11 N O4

CM 2

CRN 351525-36-5 CMF (C6 H12 O . C6 H12 O . C4 H8 O . (C2 H6 O Si)n C15 H32 O3 Si2 . C2 C1 F3)x

CCI PMS

CM 3

CRN 149925-73-5 CMF (C2 H6 O Si)n C15 H32 O3 Si2 CCI PMS

CRN 42978-84-7 CMF C6 H12 O2

CCI IDS

## $n-BuO-CH \longrightarrow CH_2$

D1-OH

CM 5

CRN 111-34-2 CMF C6 H12 O

 $n-BuO-CH-CH_2$ 

CM 6

CRN 109-92-2 CMF C4 H8 O

 $_{\rm H_3C^-CH_2^-O^-CH^-CH_2}$ 

CM 7

CRN 79-38-9 CMF C2 C1 F3

RN 557061-99-1 CAPLUS
CN Butanol, (ethenyloxy)-, polymer with 1,1-difluoroethene,
α-[dimethyl[3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]silyl]-ω[(trimethylsilyl)oxy]poly[oxy(dimethylsilylene)], 1-(ethenyloxy)butane and tetrafluoroethene, [2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]carbamate,
graft (9CI) (CA INDEX NAME)

CM 1

CRN 96571-20-9

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ || & || & || \\ \text{HO}_2\text{C-NH-CH}_2\text{-CH}_2\text{-O-C-C-Me} \end{array}$$

CRN 557061-98-0

CMF (C6 H12 O2 . C6 H12 O . (C2 H6 O Si)n C12 H26 O3 Si2 . C2 H2 F2 . C2

F4)x

CCI PMS

CM 3

CRN 123109-42-2

CMF (C2 H6 O Si)n C12 H26 O3 Si2

CCI PMS

CM 4

CRN 42978-84-7 CMF C6 H12 O2

CCI IDS

D1-OH

CM 5

CRN 116-14-3 CMF C2 F4

CM 6

CRN 111-34-2

CMF C6 H12 O

CRN 75-38-7 CMF C2 H2 F2

CH<sub>2</sub> . || F- C- F

RN 557062-02-9 CAPLUS

CN 2-Propenoic acid, methyl ester, polymer with chlorotrifluoroethene, 1,1-difluoroethene,  $\alpha$ -[dimethyl[3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]silyl]- $\omega$ -[(trimethylsilyl)oxy]poly[oxy(dimethylsilylene)], (ethenyloxy)butanol and tetrafluoroethene, [2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]carbamate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 96571-20-9 CMF C7 H11 N O4

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ || & || \\ \text{HO}_2\text{C-NH-CH}_2\text{-CH}_2\text{-O-C-C-Me} \end{array}$$

CM 2

CRN 557062-01-8

CMF (C6 H12 O2 . C4 H6 O2 . (C2 H6 O Si)n C12 H26 O3 Si2 . C2 H2 F2 . C2 C1 F3 . C2 F4)x

CCI PMS

CM 3

CRN 123109-42-2

CMF (C2 H6 O Si)n C12 H26 O3 Si2

CCI PMS

CM 4

CRN 42978-84-7 CMF C6 H12 O2

CCI IDS

```
n-BuO-CH \longrightarrow CH_2
```

D1-OH

CM 5

CRN 116-14-3 CMF C2 F4

CM 6

CRN 96-33-3 CMF C4 H6 O2

$$\begin{array}{c} \text{O} \\ || \\ \text{MeO-C-CH-----} \text{CH} \\ \end{array}$$

CM 7

CRN 79-38-9 CMF C2 C1 F3

CM 8

CRN 75-38-7 CMF C2 H2 F2

RN 557062-06-3 CAPLUS CN Butanol, (ethenyloxy)-, polymer with 1,1-difluoroethene, \$\alpha\$-(ethenyldimethylsilyl)-\$\alpha\$-[(ethenyldimethylsilyl)\coxy] poly[oxy (dimethylsilylene)], ethoxyethene and tetrafluoroethene, [2-[(2-methyl-1-oxo-2-propenyl)\coxy]ethyl]carbamate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 96571-20-9 CMF C7 H11 N O4

$$\begin{array}{c|c} & {\rm O} & {\rm CH_2} \\ & || & || \\ {\rm HO_2C-NH-CH_2-CH_2-O-C-C-Me} \end{array}$$

CM 2

CRN 557062-05-2

CMF (C6 H12 O2 . C4 H8 O . (C2 H6 O Si)n C8 H18 O Si2 . C2 H2 F2 . C2

F4)x

CCI PMS

CM 3

CRN 59942-04-0

CMF (C2 H6 O Si)n C8 H18 O Si2

CCI PMS

CM 4

CRN 42978-84-7 CMF C6 H12 O2

CCI IDS

D1-OH

CM 5

CRN 116-14-3 CMF C2 F4

CM 6

CRN 109-92-2 CMF C4 H8 O

CRN 75-38-7 CMF C2 H2 F2

RN 557062-09-6 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with 1,1-difluoroethene,  $\alpha$ -(ethenyldimethylsilyl)- $\omega$ - [(ethenyldimethylsilyl)oxy]poly[oxy(dimethylsilylene)], ethoxyethene and tetrafluoroethene, [2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]carbamate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 96571-20-9 CMF C7 H11 N O4

$$\begin{array}{c|c} & {\rm O} & {\rm CH_2} \\ || & || & || \\ {\rm HO_2C-NH-CH_2-CH_2-O-C-C-Me} \end{array}$$

CM 2

CRN 557062-08-5

CMF (C6 H10 O3 . C4 H8 O . (C2 H6 O Si)n C8 H18 O Si2 . C2 H2 F2 . C2 F4)x

CCI PMS

CM 3

CRN 59942-04-0

CMF (C2 H6 O Si)n C8 H18 O Si2

CCI PMS

CM 4

CRN 868-77-9 CMF C6 H10 O3

CRN 116-14-3 CMF C2 F4

CM

CRN 109-92-2 CMF C4 H8 O

 $H_3C-CH_2-O-CH=-CH_2$ 

CM

CRN 75-38-7 C2 H2 F2 CMF

ANSWER 9 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN (L11

2003:116925 CAPLUS AN

DN 138:171342

Grinding pads for semiconductors, the grinding apparatus therewith, and ΤI manufacture of semiconductor devices with the use of the apparatus

Furukawa, Shoichi; Imauchi, Toshio IN

PA Asahi Kasei Corporation, Japan

Jpn. Kokai Tokkyo Koho, 6 pp. SO

CODEN: JKXXAF

DT Patent

LΑ Japanese

FAN.CNT 1

DATE APPLICATION NO. PATENT NO. KIND ----20010801 JP 2001-233050 20030214 JP 2003045830

20010801 PRAI JP 2001-233050

Title pads, which are used to uniformly level semiconductor wafer surfaces without scratches in chemical mech. polishing process, are light- and/or heat-curable photopolymer compns. containing urethane compds. prepared from OH-containing compds. and monoisocyanates. A composition containing a

reaction product

of 2-isocyanatoethyl methacrylate (I) and adipic acid-diethylene glycol-fumaric acid copolymer, a 1:2 3-methyl-1,5-pentanediol and I adduct, a 1:2 caprolactone diol and I adduct, a phenylacetophenone, and a polymerization inhibitor was formed into a sheet, UV-cured, cut into desired shape, and dressed to form a pad useful to uniformly grind a wafer with Si oxide surface.

30674-80-7DP, 2-Isocyanatoethyl methacrylate, reaction products IT with unsatd. polyesters, polymers with diol/isocyanatoethyl methacrylate adducts 497075-22-6DP, polymers with reaction products of unsatd. polyesters and isocyanatoethyl methacrylate

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(OH-containing compound and monoisocyanate reaction product-based photocurable compns. for grinding pads for manufacture of semiconductor devices)

30674-80-7 CAPLUS RN

2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester (CA INDEX NAME) CN

$$\begin{array}{c|c} \cdot & \text{H}_2\text{C} & \text{O} \\ & || & || \\ \text{Me-C-C-O-CH}_2\text{--CH}_2\text{--NCO} \end{array}$$

497075-22-6 CAPLUS RN

2-Propenoic acid, 2-methyl-, 8-methyl-4,12-dioxo-5,11-dioxa-3,13-CNdiazapentadecane-1,15-diyl ester (9CI) (CA INDEX NAME)

PAGE 1-B

$$\begin{array}{c|c} & {\rm O} & {\rm CH_2} \\ & \parallel & \parallel \\ & - {\rm CH_2} - {\rm CH_2} - {\rm O} - {\rm C} - {\rm C} - {\rm Me} \end{array}$$

L11 ANSWER 10 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN

ΑN 2001:270454 CAPLUS

DN134:318767

High-sensitivity acrylic resins, their compositions, preparation, color ΤI filters therefrom, and liquid crystal panels

Nakamura, Kazuhiko; Sega, Shunsuke IN

Dai Nippon Printing Co., Ltd., Japan PΑ

Jpn. Kokai Tokkyo Koho, 31 pp. so

CODEN: JKXXAF

DT Patent

Japanese LΑ

FAN.	CNT	1																
	PA?	ENT :	NO.			KIN	D	DATE		1	APPI	LICAT	ION I	NO.		. D	ATE	
		. <b></b> -	<b>-</b> -				-	- <b></b>								_		
ΡI	JΡ	2001	1067	65		Α		2001	0417	,	JP 1	L999-	2888	02		1	9991	800
	US	6582	862			В1		2003	0624	. 1	US 2	2000-	6807	86		2	0001	006
	TW	2603	29			В		2006	0821	•	TW 2	2000-	8912	1019		2	0001	007
	WO	2001	0271	82		A1		2001	0419	1	WO 2	2000-	JP70	35		2	0001	010
		RW:	ΑT,	BE,	CH,	CY,	DE,	DK,	ES,	FI,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,
			PT,	SE														
	EP	1141	063			A1		2001	1010		EP 2	2000-	9647	61		2	0001	010
	ΕP	1141	063			В1		2006	1213									
		R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,

IE, FI
PRAI JP 1999-288802 A 19991008
WO 2000-JP7035 W 20001010
OS MARPAT 134:318767
GI

Ι

AB The resins, showing good storage stability without viscosity increase and high transparency, are prepared by (i) polymerizing acidic-functional-group-bearing unsatd. monomers with OH-bearing unsatd. monomers in the presence of non-nitrile-type azo catalysts or peroxide catalysts, (ii) reacting the polymers with (B) NCO-bearing radical monomers at NCO/OH ≥1.0 to form amide and/or urethane linkages, and optionally by (iii) reacting the polymers with alcs. The step (ii) is carried out in the presence of polymerization inhibitors chosen from PhOH derivs. I (R6 = H, C1-5 alkyl, etc.; R7, R9 = H, C1-10 alkyl; R8 = H, C1-10 alkyl, etc.) and/or (R11C6H4O)3P (R11 = H, C1-20 alkyl). The resins may satisfy B/A (molar ratio) ≥8/100 based on 1H-NMR on samples which are removed of ≤5000-mol.-weight fractions.

IT 334770-06-8P, Acrylic acid-benzyl methacrylate-2-hydroxyethyl
 methacrylate-2-(methacryloyloxy)ethyl isocyanate-SR 399-styrene copolymer
 pentyl ester

RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)

(high-sensitivity photoimaging materials comprising isocyanate-reacted acrylic polymers with good storage stability)

RN 334770-06-8 CAPLUS

2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with ethenylbenzene, 2-[[3-hydroxy-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate, 2-isocyanatoethyl 2-methyl-2-propenoate, phenylmethyl 2-methyl-2-propenoate and 2-propenoic acid, pentyl ester (9CI) (CA INDEX NAME)

CM 1

CN

CRN 71-41-0 CMF C5 H12 O

 $Me^-(CH_2)_4-OH$ 

CM 2

CRN 334770-05-7

CMF (C25 H32 O12 . C11 H12 O2 . C8 H8 . C7 H9 N O3 . C6 H10 O3 . C3 H4 O2)  $\times$ 

CCI PMS

CRN 60506-81-2 CMF C25 H32 O12

CM 4

CRN 30674-80-7 CMF C7 H9 N O3

CM 5

CRN 2495-37-6 CMF Cll H12 O2

$$\begin{array}{c|c} ^{\rm H_2C} & {\rm O} \\ & || & || \\ ^{\rm Me-} & {\rm C-C-O-CH_2-Ph} \end{array}$$

CM 6

CRN 868-77-9 CMF C6 H10 O3

CM 7

CRN 100-42-5 CMF C8 H8

 $H_2C = CH - Ph$ 

CM 8

L11 ANSWER 11 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2000:198059 CAPLUS

DN 132:251890

TI Thermally polymerizable compositions and their use in batteries and double-layer capacitors

IN Takeuchi, Masataka; Naijo, Shuichi

PA Showa Denko K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 21 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000086711	A	20000328	JP 1998-263203	19980917
	US 6562513	B1	20030513	US 1999-391155 ·	19990908
DDAT	TD 1000-263203	λ	19920917		

The compns. comprise thermally polymerizable (meth)acrylate compds. which bear oxyalkylene, fluorocarbyl, oxyfluorocarbyl or/and carbonate groups, electrolyte salts, benzene ring-free initiators and polymerization inhibitors containing vinyl groups. The compns. are useful for solid electrolytes of primary and secondary batteries or elec. double-layer capacitors. Thus, reacting an ethylene oxide-propylene oxide copolymer glycerol ether with 2-isocyanatoethyl methacrylate gave a derivative, 1.0 g of which was combined with di-Et carbonate 5.0, ethylene carbonate 2.0, LiPF6 1.00, Nofmer MSD (polymerization inhibitor) 0.0018 and Perhexyl PV (peracid catalyst) 0.018 g, cast between 2 fluorinated Ca plates and heated to give a solid polymer.

To 76363-90-1P, Ethoxylated propoxylated glycerol triester with 2-(isocyanato)ethyl methacrylate 79176-98-0P, Ethylene oxide-propylene oxide copolymer butyl ether, ester with 2-(isocyanato)ethyl methacrylate

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(macromer; thermally polymerizable compns. and use in batteries and double-layer capacitors)

RN 76363-90-1 CAPLUS

CN Oxirane, methyl-, polymer with oxirane, ether with 1,2,3-propanetriol (3:1), tris[[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]carbamate] (9CI) (CFINDEX NAME)

CM 1

CRN 96571-20-9 CMF C7 H11 N O4

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ || & || \\ \text{HO}_2\text{C} - \text{NH} - \text{CH}_2 - \text{CH}_2 - \text{O} - \text{C} - \text{C} - \text{Me} \end{array}$$

CRN 56-81-5 CMF C3 H8 O3

 $\begin{array}{c} \text{OH} \\ | \\ \text{HO-} \ \text{CH}_2\text{--} \ \text{CH-} \ \text{CH}_2\text{--} \ \text{OH} \end{array}$ 

CM 3

CRN 9003-11-6

CMF (C3 H6 O . C2 H4 O)x

CCI PMS

CM 4

CRN 75-56-9 CMF C3 H6 O

Сн3

CM 5

CRN 75-21-8 CMF C2 H4 O

. ,0

RN 79176-98-0 CAPLUS

CN Oxirane, methyl-, polymer with oxirane, mono[[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]carbamate], butyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 96571-20-9 CMF C7 H11 N O4

 $\begin{array}{c|c} & {\rm O} & {\rm CH_2} \\ || & || \\ {\rm HO_2C-NH-CH_2-CH_2-O-C-C-Me} \end{array}$ 

CM 2

CRN 71-36-3 CMF C4 H10 O

 $_{\rm H_3C^-CH_2^-CH_2^-OH}$ 

```
CM
          9003-11-6
     CRN
     CMF
          (C3 H6 O . C2 H4 O)x
     CCI
          PMS
          CM
               75-56-9
          CRN
          CMF
               C3 H6 O
     CH3
          CM
               5
          CRN
               75-21-8
          CMF
               C2 H4 O
     262370-83-2P, 1,3-Propylene glycol di(chlorocarbonate)-1,3-
     propylene glycol copolymer, diester with 2-(isocyanato)ethyl methacrylate
     RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
     (Reactant or reagent)
        (oligomeric, monomer; thermally polymerizable compns. and use in
        batteries and double-layer capacitors)
     262370-83-2 CAPLUS
RN
     Carbonochloridic acid, 1,3-propanediyl ester, polymer with
CN
     1,3-propanediol, bis[[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]carbamate]
     (9CI) (CA INDEX NAME)
     CM
          1
          96571-20-9
     CRN
          C7 H11 N O4
     CMF
HO_2C-NH-CH_2-CH_2-O-C-C-Me
     CM
          228863-58-9
     CRN
          (C5 H6 Cl2 O4 . C3 H8 O2)\times
     CMF
     CCI
          PMS
          CM
               3
          CRN
               20215-51-4
```

C5 H6 C12 O4

CMF

ΙT

CRN 504-63-2 CMF C3 H8 O2

 $HO-CH_2-CH_2-CH_2-OH$ 

IT 226225-64-5P, 1,3-Propylene glycol di(chlorocarbonate)-1,3propylene glycol copolymer sru, diester with 2-(isocyanato)ethyl methacrylate

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(oligomeric; thermally polymerizable compns. and use in batteries and double-layer capacitors)

RN 226225-64-5 CAPLUS

CN Poly(oxycarbonyloxy-1,3-propanediyl),  $\alpha$ -[3-[[[[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]amino]carbonyl]oxy]propyl]- $\omega$ -[[[[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]amino]carbonyl]oxy]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

1T 197526-73-1P, Ethoxylated propoxylated glycerol triester with
2-(isocyanato)ethyl methacrylate, homopolymer 262290-79-9P,
1,3-Propylene glycol di(chlorocarbonate)-1,3-propylene glycol copolymer
sru, diester with 2-(isocyanato)ethyl methacrylate, homopolymer
262370-82-1P, Ethylene oxide-propylene oxide copolymer butyl
ether, ester with 2-(isocyanato)ethyl methacrylate, homopolymer
262370-84-3P, 1,3-Propylene glycol di(chlorocarbonate)-1,3propylene glycol copolymer, diester with 2-(isocyanato)ethyl methacrylate,
homopolymer
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(thermally polymerizable compns. and use in batteries and double-layer capacitors)

RN 197526-73-1 CAPLUS

CN Oxirane, methyl-, polymer with oxirane, ether with 1,2,3-propanetriol
 (3:1), tris[[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]carbamate],
 homopolymer (9CI) (CA INDEX NAME)

CRN 76363-90-1

CMF C7 H11 N O4 . 1/3 C3 H8 O3 . (C3 H6 O . C2 H4 O)  $\mathbf{x}$ 

CM 2

CRN 96571-20-9 CMF C7 H11 N O4

CM 3

CRN 56-81-5 CMF C3 H8 O3

$$^{\rm OH}_{\rm HO-CH_2-CH-CH_2-OH}$$

CM 4

CRN 9003-11-6 CMF (C3 H6 O . C2 H4 O)x

CCI PMS

CM 5

CRN 75-56-9 CMF C3 H6 O



CM 6

CRN 75-21-8 CMF C2 H4 O



CN

RN 262290-79-9 CAPLUS

Poly(oxycarbonyloxy-1,3-propanediyl),  $\alpha$ -[3-[[[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]amino]carbonyl]oxy]propyl]- $\omega$ -[[[[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]amino]carbonyl]oxy]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 226225-64-5

CMF (C4 H6 O3)n C17 H26 N2 O8 CCI PMS

PAGE 1-A

PAGE 1-B

RN 262370-82-1 CAPLUS

CN Oxirane, methyl-, polymer with oxirane, mono[[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]carbamate], butyl ether, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 79176-98-0 CMF C7 H11 N O4 . C4 H10 O . (C3 H6 O . C2 H4 O)×

CM 2

CRN 96571-20-9 CMF C7 H11 N O4

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ & || & || \\ \text{HO}_2\text{C} - \text{NH} - \text{CH}_2 - \text{CH}_2 - \text{O} - \text{C} - \text{C} - \text{Me} \end{array}$$

CM 3

CRN 71-36-3 CMF C4 H10 O

 $_{\rm H_3C-CH_2-CH_2-CH_2-OH}$ 

CM 4

CRN 9003-11-6

CMF (C3 H6 O . C2 H4 O)x

CCI PMS

CM 5

° CRN 75-56-9 CMF C3 H6 O CH<sub>3</sub>

CM 6

CRN 75-21-8 CMF C2 H4 O

 $^{\circ}$ 

RN 262370-84-3 CAPLUS

CN Carbonochloridic acid, 1,3-propanediyl ester, polymer with
 1,3-propanediol, bis[[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]carbamate],
 homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 262370-83-2

CMF C7 H11 N O4 . 1/2 (C5 H6 Cl2 O4 . C3 H8 O2)x

CM 2

CRN 96571-20-9 CMF C7 H11 N O4

 $\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ & || & || \\ \text{HO}_2\text{C} - \text{NH} - \text{CH}_2 - \text{CH}_2 - \text{O} - \text{C} - \text{C} - \text{Me} \end{array}$ 

CM 3

CRN 228863-58-9

CMF (C5 H6 Cl2 O4 . C3 H8 O2)x

CCI PMS

CM 4

CRN 20215-51-4 CMF C5 H6 Cl2 O4

O O O O O C1-C-O-(CH2)3-O-C-C1

CM 5

CRN 504-63-2 CMF C3 H8 O2

 $_{\text{HO}-\text{ CH}_2-\text{ CH}_2-\text{ CH}_2-\text{ OH}}$ 

```
L11 ANSWER 12 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN
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AN 2000:150568 CAPLUS

DN 132:209251

TI Reactive oxygen inhibition suppressants and uses thereof

IN Kawashima, Miki; Tanaka, Hiroaki; Nakamura, Minoru

PA Toyo Ink Mfg. Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 25 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI JP 2000073055	Α	20000307	JP 1998-246136	19980831	
PRAI JP 1998-246136		19980831	•		

AB Dendrimers of secondary and tertiary amines having long chains or active H's and vinyl groups are prepared, which suppress O inhibition. Thus, a suppressant was prepared from 4-cascade (1,4-diaminobutane[4]:propylamine) 32, hydroxyethyl acrylate 23, lauryl acrylate 144, and methacryloyloxyethyl isocyanate 31 g and cured with electron beam under 50000 ppm O to form a coating.

IT 30674-80-7DP, reaction products with hydroxy group-containing polyamine dendrimers, optionally polymers with acrylates RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(manufacture of vinyl dendrimers as oxygen inhibition suppressants and crosslinking of coatings containing vinyl dendrimers by electron beam)

RN · 30674-80-7 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester (CA INDEX NAME)

$$\begin{array}{c|c} {\rm H_2C} & {\rm O} \\ & || & || \\ {\rm Me-C-C-C-O-CH_2-CH_2-NCO} \end{array}$$

L11 ANSWER 13 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1999:530982 CAPLUS

DN 131:158089

TI Method for purification of isocyanatoalkyl (meth)acrylate substantially free from chlorine by distillation and dechlorination using epoxy compound and amine

IN Misu, Naoaki; Matsuhira, Shinya; Kihara, Muneyo; Ohnishi, Yutaka

PA Showa Denko K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN CNT 1

LWM.	TA T	<b>.</b>																
	PAT	CENT 1	NO.			KIN	D	DATE		Α	PPL	ICAT	ION	NO.		D	ATE	
							-			-						-		
PI	JΡ	1122	8523		•	A		1999	0824	´ J	P 1	998-	2549	3 -		1	9980:	206
	CA	2261	324			A1		1999	0806	C.	A 1	999-	2261	324		1:	9990:	205
	EP	9362	14			A2		1999	0818	E	P 1	999-	1023	18		1:	9990:	205
	ΕP	9362	14			A3		1999	0825									
		R:	ΑT,	BE,	CH,	DE,	DK	, ES,	FR,	GB,	GR,	IT,	LI,	LU,	ΝL,	SE,	MC,	PT,
			ΙE,	SI,	LT,	LV,	FI	, RO										
	US	6245	935			B1		2001	0612	U	S 1	999-	2457	07		1	9990	208
PRAI	JP	1998	-254	93		Α		1998	0206									
	US	1998	-101	527P		P		1998	0923								•	
	<b>T</b>			1 1 7	1	\	'	1	1_		4 - 7	1 E		£	11	7 4		

AB Isocyanatoalkyl (meta)acrylates substantially free from hydrolytic chlorine are prepared by purification which involves treatment of (A)

isocyanatoalkyl acrylate containing isocyanatoalkyl 2-chloropropionate or (B) isocyanatoalkyl methacrylate containing isocyanatoalkyl 2-methyl-2chloropropionate with an epoxy-containing compound and amine/or imidazole until isocyanatoalkyl 2-chloropropionate or 2-methyl-2-chloropropionate is no longer present. The purified isocyanatoalkyl (meta)acrylate is useful as a raw material for photoresists (active ray-curable resins) suitable for electronic or elec. parts which is not compatible with chlorine. Thus, 2-isocyanatoethyl methacrylate (I) containing 381 ppm hydrolytic chlorine 300, epoxidized fatty plasticizer (mol. weight .apprx.100 and iodine value 7) containing 6.1% oxirane oxygen 1.7, 2,6-di-tert-butyl-4-methylphenol 0.3, and triethylenetetramine 0.11 g were stirred in a glass reaction vessel at 60° and .apprx.1.3 kPa and distilled at 85° to give 220 g I containing 29 ppm hydrolytic chlorine. Phenothiazine (0.15 g) was added the purified I (150 g) and the resulting mixture was distilled at 70° (column bottom temperature 81°) and .apprx.0.7 kPa with a series of two glass columns packed with Dixon packings to give 53 g I in which no hydrolytic chlorine was detected.

IT 30674-80-7P, 2-Isocyanatoethyl methacrylate

RL: PUR (Purification or recovery); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(purification of isocyanatoalkyl (meth)acrylate as monomers substantially free from chlorine by distillation and dechlorination using epoxy compound

and

amine)

RN 30674-80-7 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester (CA INDEX NAME)

L11 ANSWER 14 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1999:65364 CAPLUS

DN 130:183905

TI Curable compositions containing mercapto compounds and unsaturated compounds catalyzed by tertiary amines

IN Nakamura, Masataka; Henmi, Masahiro

PA Toray Industries, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF
DT Patent

tackiness.

LA Japanese

FAN. CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI JP 11021352	Α	19990126	JP 1997-178386	19970703	
PRAI JP 1997-178386		19970703			

AB The compns., useful for coatings, adhesives, sealants, etc., comprise (A) compds. bearing ≥2 SH groups, (B) compds. having ≥2 C:C bonds, and (C) tertiary amines having amidine structures except for 1,8-diazabicyclo[5.4.0]undec-7-ene (DBU). Thus, a composition containing NK Ester

A 400 15.2, Light Acrylate TMP-6EO-3A 1.2, N-nitrosophenylhydroxylamine Al salt 0.1, and 1,5-diazabicyclo[4.3.0]non-5-ene 1.0 part was mixed with 100 parts Thiokol LP 56 and left for 5 h to give a cured product showing no

IT 51309-27-4DP, polymers with ethoxylated trimethylolpropane triacrylate and Thiokol LP 3

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(curable compns. for coatings, sealants, and adhesives containing mercapto compds. and unsatd. compds. catalyzed by tertiary amines)

RN 51309-27-4 CAPLUS

CN Poly [oxy (methyl-1,2-ethanediyl)],  $\alpha$ -[[[2-[(2-methyl-1-oxo-2propenyl) oxy] ethyl] amino] carbonyl]  $-\omega - [[[[2-[(2-methyl-1-oxo-2-i)]]]]$ propenyl)oxy]ethyl]amino]carbonyl]oxy]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ & || & || \\ - & \text{O} - & \text{C} - & \text{C} - & \text{Me} \end{array}$$

L11 ANSWER 15 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN

ΑN 1998:651065 CAPLUS

DN 129:317086

One-component-type curable compositions containing mercapto compounds

Nakamura, Masataka; Henmi, Masahiro

Toray Industries, Inc., Japan PΑ

Jpn. Kokai Tokkyo Koho, 13 pp. SO

CODEN: JKXXAF

DTPatent

LA Japanese

FAN. CNT 1

	J-1						
	PATENT NO.		KIND .	DATE	APPLICATION NO.	DATE	
ΡI	JP 10265612		A	19981006	JP 1997-69636	19970324	
PRAT	JP 1997-69636	•		19970324			

The title compns. contain compds. having protected mercapto groups and ABcompds. having ≥2 C-C double bonds in a mol. The compns. are cured by the addition reactions of mercapto groups with C-C double bonds and useful for coatings, adhesives, sealing compns., etc. Thus, polysulfides (a mixture of Thiokol LP 56 and LP 3) were trimethylsilylated with hexamethyldisilazane and 100.0 parts of the resulting trimethylsilyl derivs. were mixed with 10.0 parts polyethylene glycol diacrylate (NK Ester A 400), 10.0 parts ethylene oxide-modified trimethylolpropane triacrylate (Light Acrylate TMP 6EO3A), N-nitrosophenylhydroxylamine Al salt, and 1,8-diazabicyclo[5.4.0]undecene-7 under N and sealed in an Al tube. The composition was cured within 1 day after extruding on a paper plate at 20° and relative humidity 70%.

30674-80-7DP, Karenzu MOI, reaction products with polypropylene IT glycol, polymers with acrylates and trimethylsilylated polysulfides RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(one-component-type curable compns. containing mercapto compds. and vinyl

compds.)

CAPLUS RN 30674-80-7

2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester (CA INDEX NAME) CN

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AN 1996:294984 CAPLUS
DN 125:45116
TI Photosensitive aromatic polyimide precursor compositions and polyimide pattern formation method
IN Matsuoka, Yoshio; Yokota, Kanichi; Kataoka, Yasuhiro
```

PA Asahi Chemical Ind, Japan SO Jpn. Kokai Tokkyo Koho, 34 pp. CODEN: JKXXAF

DT Patent LA Japanese FAN.CNT 1

GI

Η,

KIND APPLICATION NO. PATENT NO. DATE \_\_\_\_\_\_ ----\_\_\_\_\_\_ -----JP 08050354 JP 1995-145143 PI А 19960220 B2 JP 2826979 19981118 PRAI JP 1995-145143 19950522

L11 ANSWER 16 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN

AB In the title compns. containing (A) aromatic polyimide precursor polymers with amide bond concentration ≥1.5 mol/kg containing repeating units C(O)X[C(O)R][C(O)Ra]C(O)NHYNH (I; X = hexavalent F-free aromatic group or hexavalent organic group with chemical structures of 2-4 F-free aromatic group bonded via ≥1 bond selected from single bonds, ether, thioether, carbonyl, methylene, sulfoxide, sulfone; COR, CORa, and CONH are ortho position from each other; R, Ra = OR1, NHR2, O-N+R3R4R5R6, OH; R1-3 = organic group containing ethylenic unsatd. bonds at least on the parts; R4-6 =

DATE

19950522

C1-6 hydrocarbon; at least a part of R and Ra are residues other than OH; Y = F-free divalent aromatic group, F-free divalent organic group with chemical structures of 2-6 aromatic groups which are bonded to each other via ≥1 bonds selected from ether, thioether, carbonyl, methylene, 2,2-propylene, sulfoxide, and sulfone), (B) photopolymn. initiators, and (C) solvents, Y in the aromatic polyimide precursor polymers are divalent groups II (R7 = C1-4 aliphatic hydrocarbon; n = 0-3) and light absorption at wavelength 365 nm of the films formed after application of the compns. followed by drying are ≤1.5 per film thickness 10 µm. The pattern formation method comprise (i) applying the photosensitive compns. to substrates, (ii) exposing to i-ray, (iii) removing the undeveloped parts with developers, and (i.v.) heat treating the obtained patterns. 178040-27-2P, 9,10-Bis(4-aminophenyl)anthracene-3,3',4,4'-diphenyl ether tetracarboxylic dianhydride-2-isocyanatoethyl methacrylate copolymer

1T 178040-27-2P, 9,10-Bis(4-aminophenyl)anthracene-3,3',4,4'-diphenyl
 ether tetracarboxylic dianhydride-2-isocyanatoethyl methacrylate copolymer
 178040-28-3P, Bis[4-(4-aminophenoxy)phenyl] ether-3,3',4,4' diphenyl sulfone tetracarboxylic dianhydride-2-isocyanatoethyl
 methacrylate copolymer

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(aromatic polyimide precursor photosensitive compns. and their pattern formation methods with i-ray)

RN 178040-27-2 CAPLUS

2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester, polymer with 4,4'-(9,10-anthracenediyl)bis[benzenamine] and 5,5'-oxybis[1,3-isobenzofurandione] (9CI) (CA INDEX NAME)

CRN 106704-35-2 CMF C26 H20 N2

CM 2

CRN 30674-80-7 CMF C7 H9 N O3

CM 3 .

CRN 1823-59-2 CMF C16 H6 O7

RN 178040-28-3 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester, polymer with 4,4'-[oxybis(4,1-phenyleneoxy)]bis[benzenamine] and 5,5'-sulfonylbis[1,3-isobenzofurandione] (9CI) (CA INDEX NAME)

CM 1

CRN 30674-80-7 CMF C7 H9 N O3

CRN 13080-88-1 C24 H20 N2 O3 CMF

CM3

2540-99-0 CRN CMF C16 H6 O8 S

COPYRIGHT 2007 ACS on STN ANSWER 17 OF 32 CAPLUS L11

1995:729957 CAPLUS AN

DN. 123:287356

Reaction of (meth)acryloyl-containing compounds by using TI polymerization inhibitors

Ito, Juji; Matsui, Fumio; Uotani, Nobuo; Takyama, Eiichiro; Hasegawa, IN Atsushi

PA Showa Denko Kk, Japan; Showa Highpolymer

so Jpn. Kokai Tokkyo Koho, 6 pp. CODEN: JKXXAF

DT Patent

LΑ Japanese

FAN.CNT 1				
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 07138307	A	19950530	JP 1993-293640	19931124
PRAI JP 1993-293640	A	19931124		
JP 1993-238417		19930924	•	

Compds. having  $\geq 1$  (meth)acryloyl group and other reactive groups AΒ are treated by themselves or with other reactive compds. in the presence of N-nitrosophenylhydroxylamine salts. Thus, isocyanatoethyl methacrylate 20, 50% AcOEt solution of 300:40:300 Bu methacrylate-2-hydroxyethyl methacrylate-Me methacrylate copolymer 740, dibutyltin dilaurate 0.8, and N-nitrosophenylhydroxylamine Al salt 0.04 part were heated under N at 70° for 3 h to form urethane bonds without polymerization of the acryloyl group.

30674-80-7DP, reaction products with polyols IT

(preparation of (meth)acryloyl group-containing compds. by using N-nitrosophenylhydroxylamine salts as polymerization inhibitors) RN 30674-80-7 CAPLUS 2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester (CA INDEX NAME) CN  $H_2C$ 0 · || Me-C-C-O-CH2-CH2-NCO ANSWER 18 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN L11 1992:652013 CAPLUS AN DN 117:252013 Storage-stable unsaturated polymer compositions ΤI IN Takiyama, Eiichiro; Morita, Katsuhisa PΑ Showa Highpolymer Co., Ltd., Japan SO Jpn. Kokai Tokkyo Koho, 9 pp. CODEN: JKXXAF DTPatent LA Japanese FAN.CNT 1 APPLICATION NO. KIND DATE DATE PATENT NO. - - - **-**19901012 JP 1990-272157 19920522 PΙ JP 04149218 Α 19960228 JP 08019200 В PRAI JP 1990-272157 19901012 The title compns. contain unsatd. polymers having  $\geq 2$ AΒ (meth)acryloyl groups/mol. and number-average mol. weight > 5000, monomers, and N-acetoacetoyl compds. Thus, a solution containing styrene-2-hydroxyethyl methacrylate-isocyanatoethyl methacrylate-isocyanatoethyl methacrylate copolymer and 0.3 phr pyrrolidine acetylacetonate (I) had storage stability 6-7 days at 60°, compared with 2-3 without I. IT 119919-96-9 RL: USES (Uses) (polymerization inhibitors for, pyrrolidine acetylacetonate as) RN119919-96-9 CAPLUS 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with CN ethenylbenzene and 2-isocyanatoethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME) CM1 CRN 30674-80-7 C7 H9 N O3 CMF

RL: IMF (Industrial manufacture); PREP (Preparation)

$$\begin{array}{c|c} {\rm H_2C} & {\rm O} \\ & || & || \\ {\rm Me-C-C-O-CH_2-CH_2-NCO} \end{array}$$

CM 2

CRN 868-77-9 CMF C6 H10 O3

```
H<sub>2</sub>C
Me^-C^-C^-O^-CH_2^-CH_2^-OH
     CM
          3
     CRN
          100-42-5
     CMF
          C8 H8
H_2C = CH - Ph
L11 ANSWER 19 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN
AN
     1990:572920 CAPLUS
DN
     113:172920
TI Polymerization inhibition of isocyanatoalkyl (meth)acrylates
     Wakasa, Masami; Abe, Tetsuo
     Showa Rodia Kagaku Co., Ltd., Japan
PA
SO
     Jpn. Kokai Tokkyo Koho, 5 pp.
     CODEN: JKXXAF
DT
     Patent
     Japanese
LA
FAN.CNT 1
     PATENT NO.
                         KIND
                                DATE
                                             APPLICATION NO.
                                                                    DATE
     _____
                         _ _ _ _
                                _____
                                             ______
                                                                    19881129
                                             JP 1988-299584
     JP 02145555
                                19900605
PRAI JP 1988-299584
                                19881129
     Polymerization of isocyanatoalkyl (meth)acrylates, useful as monomers, is
     inhibited by SO2. Thus, 300 g 2-oxazolidinone was treated with 320 g
     methacrylic acid in MePh in the presence of phenothiazine (I) and HCl
     under stirring at 60° for 30 min, then COCl2 was bubbled in the
     solution at 80° to give 282 g 2-isocyanatoethyl methacrylate (II).
     When 100 g the reaction solution of II was mixed with 0.05 g I and refluxed
     with bubbling 20 mL/min N containing 2% SO2 at 92-96° and 7-9 mmHg for
     220 min no polymer was produced.
IT
     30674-80-7P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation and polymerization inhibition of)
RN
     30674-80-7 CAPLUS
                                                            (CA INDEX NAME)
     2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester
CN
 H<sub>2</sub>C
     0
```

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|| ||
Me- C- C- O- CH<sub>2</sub>- CH<sub>2</sub>- NCO
```

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ANSWER 20 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN
L11
AN
     1989:635181 CAPLUS
DN
     111:235181
     Radiation-curable liquid coating compositions for optical fibers
TI
     Birkle, Siegfried; Feucht, Hans Dieter; Rissel, Eva Maria; Springer,
     Siemens A.-G., Fed. Rep. Ger.
PΑ
SO
     Ger. Offen., 6 pp.
     CODEN: GWXXBX
DТ
     Patent
T.A
     German
FAN.CNT 1
```

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE					
PI PRAI	DE 3743873 DE 1987-3743873	A1 ·	19890706 19871223	DE 1987-3743873	19871223					
AB	≤-40° and good compareaction products of	atibili f polyo:	ty with othe: xyalkylene d:	iglycidyl ethers (I) wi	th glycerol					
	di(meth)acrylate or pentaerythritol tri(meth)acrylate or reaction products of (meth)acrylic acid or chloride or isocyanatoalkyl (meth)acrylates with reaction products of I with low-mol. weight polyols or (meth)acrylic acid. An acid-catalyzed reaction product of 325 g 1,4-butanediol with 2250 g polytetramethylene glycol diglycidyl ether (mol. weight 3000) was stirred (200 g) with 15 g acrylic acid in CHCl3 containing acid catalysts and									
	photoinitiator was	iscous : cured b	resin. A 200 y UV light (1	ve .apprx.140 g 0-μm film of this resin 100 mJ/cm2) to a film w y coating for optical f	ith glass					

IT 30674-80-7D, reaction products with polytetramethylene glycol diglycidyl ether and butanediol

RL: USES (Uses)

(coatings containing, radiation-curable, for optical fibers)

RN 30674-80-7 CAPLUS

2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester (CA INDEX NAME) CN

$$\begin{array}{c|c} {\rm H_2C} & {\rm O} \\ & || & || \\ {\rm Me-} & {\rm C-} & {\rm C-} & {\rm O-} & {\rm CH_2-} & {\rm CH_2-} & {\rm NCO} \end{array}$$

L11 ANSWER 21 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN

1989:553220 CAPLUS AN

DN111:153220

Purification of unsaturated carboxylic acid isocyanatoalkyl esters by TT distillation

Abe, Tetsuo; Yokoo, Hidejiro; Wakasa, Masami IN

Showa Rodia Kagaku Co., Ltd., Japan PΑ

Jpn. Kokai Tokkyo Koho, 7 pp. so CODEN: JKXXAF

DT Patent

Japanese LA

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
			TD 1005 100155	10070010		
PI JP 01042463	Α.	19890214	JP 1987-198157	19870810		
JP 07103085	В	19951108	•	•		
PRAI JP 1987-198157		19870810				

MARPAT 111:153220 os .

The title esters, useful as monomers, are purified by distillation in the AB presence of ≥1 compound selected from phenothiazine (I), alkylphenols, hydroquinone, alkylhydroquinones, p-MeOC6H4OH, tannic acid, and anthraquinone and ≥1 compound selected from Et2NCH2CH2OH (II), N-nitroso-N-arylhydroxylamine NH4 salts, N-nitroso-N-propylurethane, H2NNHCH2CH2OH, and C6H4(NO2)2 to prevent popcorn polymerization CH2:CMeCO2H

(320 g) was gradually added to mixture of 300 g 2-oxazolidinone, I, and toluene while bubbling with HCl over 60 min, and the reaction mixture was further stirred at 60° for 30 min, and then heated at 80° while bubbling with COCl2. After distilling off toluene, 230 g reaction mixture containing CH2:CMeCO2CH2CH2NCO (III) was distilled with II under 10-12 mmHg

while adding 50 g reaction mixture containing II dropwise to give 108 g III, vs. formation of polymers preventing distillation for a control without addition of II.

IT 30674-80-7P, 2-Isocyanatoethyl methacrylate RL: SPN (Synthetic preparation); PREP (Preparation) (preparation and distillation of, polymerization inhibitors for) RN 30674-80-7 CAPLUS 2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester (CA INDEX NAME) CN

 $H_2C$ 0 Me-C-C-O-CH2-CH2-NCO

ANSWER 22 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN L11

1989:505811 CAPLUS ΑN

DN 111:105811

ΤI Manufacture of photosensitive resins for photoresists

Sato, Kuniaki; Ishimaru, Toshiaki; Hayashi, Nobuyuki IN

PA Hitachi Chemical Co., Ltd., Japan

so Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF DT Patent

Japanese LA

FAN CNT

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 01014230	 A	19890118	JP 1987-169048	19870707
PRAI JP 1987-169048 GI		19870707	·	•

The title polyether resins of the structure I (W = CONHR2O2CCR3:CR4R5; R1 AB = CYZ, II, III, SO2; R2 = divalent hydrocarbon; R3-R5 = H, Me; X1-X4 = H, Cl, Br; Y, Z = H, lower alkyl, Ph; n = 10-1000) are prepared from I (W = H) and OCNR2O2CCR3:CR4R5. The resins give heat-resistant photoresist patterns useful for semiconductors. Thus, Ucar was treated with isocyanatoethyl methacrylate in the presence of a polymerization inhibitor and then the resultant resin in a solvent mixture was applied on a substrate to give a coating, which was UV-irradiated and developed to give a heat-resistant pattern.

120797-49-1 IT

RL: USES (Uses)

(photoresists from, heat-resistant, for semiconductors)

RN 120797-49-1 CAPLUS

Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2-CN (chloromethyl)oxirane, N-[2-[(2-methyl-1-oxo-2-propen-1yl)oxy]ethyl]carbamate (CA INDEX NAME)

CM

CRN 96571-20-9 CMF C7 H11 N O4

$$\begin{array}{c|c} & \text{O} & \text{CH}_2 \\ || & || & || \\ \text{HO}_2\text{C} - \text{NH} - \text{CH}_2 - \text{CH}_2 - \text{O} - \text{C} - \text{C} - \text{Me} \end{array}$$

2 CM

25068-38-6 CRN

CMF (C15 H16 O2 . C3 H5 Cl O)x

CCI PMS.

> CM3

106-89-8 CRN CMF C3 H5 Cl O

CM

80-05-7 CRN CMF C15 H16 O2

L11 ANSWER 23 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN

1989:477514 CAPLUS AN

DN 111:77514

Purification of unsaturated carboxylic acid isocyanatoalkyl esters by TIdistillation

Abe, Tetsuo; Yokoo, Hidejiro; Nozawa, Kaneo IN

Showa Rodia Kagaku Co., Ltd., Japan PΑ

Jpn. Kokai Tokkyo Koho, 6 pp. SO

CODEN: JKXXAF

 $\mathtt{DT}$ Patent

LΑ Japanese

FAN.	CNT 1					
	PATENT NO.		DATE	APPLICATION NO.	DATE	
		<b>-</b>				
ΡI	JP 01042461	. A	19890214	JP 1987-198155	19870810	
	JP 07049413	В	19950531			
PRAI	JP 1987-198155		19870810			
~~	MADDAM 111.77614					

MARPAT 111:77514 OS

The title esters, useful as monomers, are purified by distillation under AB

continuous or intermittent addition of nitrite esters in the presence of Sn(2+) and/or Fe(2+) compds. to prevent popcorn polymerization CH2:CMeCO2H

(320

g) was gradually added to a solution of 300 g 2-oxazolidinone in toluene containing phenothiazine while bubbling with HCl at 60° over 60 min, and the reaction mixture was further bubbled with HCl at 60° for 30 min, and then heated at 80° while bubbling with COCl2. After distilling off toluene, 230 g product containing CH2:CMeCO2CH2CH2NCO (I) was distilled with SnCl2 and the HNO2 ester (II) of HOCH2CH2OCH2CH2OBu under dropwise addition of 50 g product containing II to give 115 g I. When the reaction product was distilled without addition of SnCl2 and II, granules of polymerized matter were formed at the upper part of the distillation tower and polymer beads grew in the reaction mixture

IT 30674-80-7P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation and distillation of, polymerization inhibitors for)

RN 30674-80-7 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester (CA INDEX NAME)

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L11 ANSWER 24 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN
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AN 1989:457070 CAPLUS

DN 111:57070

TI Purification of unsaturated carboxylic acid isocyanatoalkyl esters by distillation

IN Abe, Tetsuo; Yokoo, Hidejiro

PA Showa Rodia Kagaku Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

1111.0111 1				•	
PATENT NO.	KINĎ	DATE	APPLICATION NO.	DATE	
PI JP 01042462	A	19890214	JP 1987-198156	19870810	
JP 07049414	В	19950531			
PRAI JP 1987-198156		19870810			
OC MADDAT 111.57070					

OS MARPAT 111:57070

AB Unsatd. carboxylic acid isocyanatoalkyl esters, useful as monomers, are purified by distillation under continuous or intermittent feeding of cupferrons dissolved in glycols to prevent popcorn polymerization. An aqueous solution of 150 g

2-isopropenyl-2-oxazoline, a solution of 200 g COCl2 in CH2Cl2, and an aqueous NaOH solution were simultaneously added to CH2Cl2 at ≤15°, and the reaction mixture was further stirred for several mins and separated After distilling off CH2Cl2 from the organic layer, the product was distilled with cupferron (I) dissolved in ethylene glycol (II) under decreased pressure while continuously adding a solution of I in II to give 181 g CH2:CMeCO2CH2CH2NCO, vs. formation of polymerized matter preventing

distillation for

a control without addition of I.

IT 30674-80-7P, 2-Isocyanatoethyl methacrylate

RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation and distillation of, cupferrons in glycols as polymerization inhibitors for)

RN 30674-80-7 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester (CA INDEX NAME)

```
Me-C-C-O-CH_2-CH_2-NCO
L11 ANSWER 25 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN
AΝ
    1988:512151 CAPLUS
    109:112151
DN
    Aromatic nitrosamines as storage stabilizers for photocurable polymers
TI
IN
    Ahne, Hellmut; Plundrich, Winfried
PA
    Siemens A.-G., Fed. Rep. Ger.
SO
    Ger. Offen., 6 pp.
    CODEN: GWXXBX
DT
    Patent
LA
    German
FAN.CNT 1
                       KIND
                              DATE
                                        APPLICATION NO.
                                                                DATE
    PATENT NO.
                                         ______
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                       _ _ _ _
                              -----
                                                                -----
PI
    DE 3630993
                        A1
                              19880317
                                          DE 1986-3630993
                                                                19860911
                       A2
                              19880316
                                         EP 1987-112573
    EP 259728
                       А3
    EP 259728
                             19900117
        R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE
    JP 63070843 A
                            19880331 JP 1987-223837
    DK 8704717
                        Α
                              19880312
                                          DK 1987-4717
                                                                19870910
    FI 8703942
                                          FI 1987-3942
                        A 19880312
                                                                19870911
                             19860911
PRAI DE 1986-3630993
                        Α
    MARPAT 109:112151
OS
    The nitrosamines (RnC6H5-n)2NNO [R = H, halo, alkyl, Ph, tolyl; n = 1-5
AB
     (but \leq 1 Ph or tolyl group)] are storage stabilizers for solns. of
    photocurable polymers (polyethers, epoxy resins, phenolic resins).
    a solution of 50% phenoxy resin (Rutapox 0723) 110, butyrolactone 114,
    isocyanatoethyl methacrylate 33, Bu2Sn dilaurate 0.1, and 2-hydroxyethyl
    methacrylate 9 parts, containing dichloroacetophenone 0.3, Michler's ketone
    0.3, CH2:CHSi(OCH2CH2OMe)3 0.3, and Ph2NNO 0.1%, maintained a constant
    viscosity (.apprx.500 mPa-s at 23°) over 6 mo. The solution was spin
```

RN 30674-80-7 CAPLUS

H<sub>2</sub>C O

CN 2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester (CA INDEX NAME)

coated on a circuit board and cured with a Hg lamp, giving a coating with properties (especially photosensitivity) unimpaired by the stabilizer.

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^{\rm H_2C}_{\parallel} 0 ^{\rm H_2C}_{\parallel} ^{\rm Me-} C- C- O- CH_2- CH_2- NCO
```

```
L11 ANSWER 26 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN
     1985:115245 CAPLUS
AN
     102:115245
     Wet adhesion promoters for emulsion polymers
TI
IN
     Sekmakas, Kazys; Shah, Raj
PA
     De Soto, Inc., USA
SO
     U.S., 4 pp.
     CODEN: USXXAM
DT
     Patent
     English
LΑ
FAN.CNT 1
                                                                    DATE
                         KIND
                                             APPLICATION NO.
     PATENT NO.
```

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19841211
19850702
PΙ
     US 4487940
                         Α
                                           US 1983-511992
                                                                   19830708
                        Α
     US 4526915
                                           US 1984-656533
                                                                   19841001
PRAI US 1983-511992
                         A3
                                19830708
    MARPAT 102:115245
    Acrylate or methacrylate functional copolymerizable monomers which enhance
     the adhesion of emulsion copolymer latexes to substrates are prepared by
     treating an (aminoalkyl)alkyleneurea with a saturated monoepoxide and then a
     monoisocyanate having a single (meth)acrylate group in the presence of
     phenothiazine (I) [92-84-2] and an inhibitor which retards the
     free-radical polymerization of ethylenic unsatn. Thus, 195 g 2-aminoethyl
     ethyleneurea in 130 g toluene was heated to 80° and treated with
     105 g propylene oxide over 2 h. The product was cooled to 40° and
     0.3 g hydroquinone [123-31-9] and 0.6 g I were added. Then 216 g
     isocyanatoethyl methacrylate was added over 2 h at 40° to give a
     storage-stable monomer having Gardner viscosity A-B. An aqueous emulsion
     polymer latex prepared using vinyl acetate 84%, Bu acrylate 14%, and above
     monomer 2% was pigmented with TiO2 and applied to a glossy alkyd surface.
     Excellent adhesion was obtained and the scrub resistance of the coating
     was excellent.
IT
     30674-80-7D, reaction products with (aminoethyl)ethyleneurea and
     propylene oxide, polymers with Bu acrylate and vinyl acetate
     RL: TEM (Technical or engineered material use); USES (Uses)
        (coatings, with good adhesion to glossy substrates)
     30674-80-7 CAPLUS
RN
     2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester (CA INDEX NAME)
CN
 H<sub>2</sub>C O
  Me-C-C-O-CH_2-CH_2-NCO
L11 ANSWER 27 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN
ΑN
     1984:553153 CAPLUS
     101:153153
DN
    Adhesive compositions
ΤI
    Boeder, Charles W.
IN
    Minnesota Mining and Manufacturing Co., USA
PA
SO
     U.S., 9 pp.
     CODEN: USXXAM
DT
     Patent
     English
LA
FAN.CNT 1
                                                                  DATE
                                           APPLICATION NO.
     PATENT NO.
                        KIND
                               DATE
                               . -----
                                           ______
                        _ _ _ _
                         Α
                                           US 1981-302712
                                                                   19810916
    US 4452955
                                19840605
PRAI US 1981-302712
                                19810916
     MARPAT 101:153153
     Pressure-sensitive adhesives are prepared by treating the reaction product
     of an aldehyde and a secondary or tertiary amine with 100 parts
     \alpha,\beta-unsatd. carboxylic acid or its derivative, 0.5-20 parts organic
     sulfimide or perfluoroalkyl sulfonanilide, and a free-radical
     polymerization inhibitor. Thus, the reaction product of
     Polymeg 2000 (polybutylene glycol) and isocyanatoethyl methacrylate 12.5,
     hydroxyethyl methacrylate 10, methacrylic acid 4.5, and saccharin 2.7
     parts were mixed and treated with 2 parts Vanax 808 (butyraldehyde anil)
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TT 92183-49-8
RL: TEM (Technical or engineered material use); USES (Uses)
(adhesives, containing saccharin accelerator)

.apprx.4 min and overlap shear value 800 psi.

RN 92183-49-8 CAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with benzenamine, butanal,

and 98 parts CH2Cl2 to give a composition having fixture time (time at which 1

+ 4 in. steel plates with adhesive could no longer be hand-separated)

 $\alpha\text{-hydro-}\omega\text{-hydroxypoly(oxy-1,4-butanediyl), 2-hydroxyethyl 2-methyl-2-propenoate and 2-isocyanatoethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)$ 

CM 1

CRN 30674-80-7 CMF C7 H9 N O3

$$^{\rm H_2C}_{||}$$
 0  $^{\rm H_2C}_{||}$   $^{\rm H_2C}_{||}$ 

CM 2

CRN 25190-06-1 CMF (C4 H8 O)n H2 O CCI PMS

HO (CH<sub>2</sub>)<sub>4</sub> - O 
$$\frac{1}{n}$$
 H

CM 3

CRN 868-77-9 CMF C6 H10 O3

CM 4

CRN 123-72-8 CMF C4 H8 O

$$_{\rm H_3C-CH_2-CH_2-CH_3-O}$$

CM 5

CRN 79-41-4 CMF C4 H6 O2

$$\begin{array}{c} \text{CH}_2 \\ || \\ \text{Me-C-CO}_2 \text{H} \end{array}$$

```
L11 ANSWER 28 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN
AN
     1984:512726 CAPLUS
DN
     101:112726
TI
     Ethylenically-unsaturated dextrin oligomers
IN
     Rousseau, Alan D.; Reilly, Laurence W., Jr.
PA
     Minnesota Mining and Manufacturing Co., USA
     U.S., 9 pp.
     CODEN: USXXAM
DT
     Patent
     English
FAN.CNT 1
                                          . APPLICATION NO.
                         KIND
                                DATE
                                                                   DATE
                                            ______
                         - - - <del>'</del>-
                                                                   _____
                                            US 1983-471781
                                                                  19830303
     US 4451613
                                19840529
PRAI US 1983-471781
                                19830303
     The reaction of dextrin (I) with N-(hydroxymethyl)acrylamide (II) in the
     presence of carboxylic acid and polymerization inhibitor gave
     photocurable, H2O-soluble (acryloylamino)methyl dextrin (III) [91727-19-4]
     useful as photoresist in pos.-acting, H2O-developable, lithog. printing
     plates. Thus, a mixture of I 51.0, 60% II solution 45.5, acrylic acid 1.68
     0.5% hydroquinone 0.6, and H2O 26.2 g was kept for 4 h at room temperature and
     heated for 130 min at 94% to give III with 0.25 substitution degree.
     III-based coating on Al plate (550 mg/ft2) wore after 12.000 impressions
     on exposure of 8 s to light in printer.
     30674-80-7D, reaction products with polyester
IT
     RL: USES (Uses)
        (coating, containing and additives, on aluminum)
     30674-80-7 CAPLUS
RN
     2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester
                                                           (CA INDEX NAME)
CN
```

AN	ANSWER 29 OF 32 CAP 1982:528839 CAPLUS 97:128839	PLUS CO	OPYRIGHT 200	7 ACS on STN					
TI	Addition polymerizable isocyanate-polyahl anaerobic adhesives								
IN	Hoffman, Dwight Keith; Frisch, Kurt Charles, Jr.								
PA	Dow Chemical Co., USA								
so	PCT Int. Appl., 30 pp.								
	CODEN: PIXXD2								
	Patent ,								
LA	English								
FAN.CNT 3									
		KIND	DATE	APPLICATION NO.	DATE				
					10011000				
PI		A1	19820624	WO 1981-US1634	19811209				
	W: AU, JP								
	RW: DE, FR, GB,		10000016	TTG 1000 015006	10001212				
	US 4320221	A	19820316	US 1980-215996	19801212				

	AU 8280046 AU 555141		0701 AU 0911	1982-80046	19811209			
	JP 57502004	T 1982	1111 JP	1982-500357	19811209			
דגסמ	JP 61053391 US 1980-215996		1117 1212					
FKAI	US 1980-215997		1212					
	WO 1981-US1634		1209					
AB	Anaerobic adhesives comprise addition polymerizable adducts of a compound containing >1 active H (polyahl) and an isocyanatoalkyl (meth)acrylate, a polymerization initiator, and a polymerization inhibitor. Thus, tetraethylene glycol 194, Ionol 0.2, and dibutyltin dilaurate 0.02 g were heated to 70°, and 2-isocyanatoethyl methacrylate (280 g) was added over 2 h to give an adduct. An adhesive was prepared by mixing the adduct							
	6.23, cumene hydroperoxide 0.3, and N,N-dimethylaniline 0.05 g. The adhesive was applied to the threads of a nut and bolt. After screwing the assembly together and allowing it to stand 15 min, the nut was not movable by hand, and after full cure a 4.7-Nm torque was needed to remove the nut.							
IT	83052-05-5 83052-06-	6 83052-07-		-				
	83052-08-8 83052-55-5 RL: TEM (Technical or engineered material use); USES (Uses) (adhesives, anaerobic)							
RN .	83052-05-5 CAPLUS	.obic)						
CN	2-Propenoic acid, 2-2,2'-oxybis[ethanol]	methyl-, 2-	isocyanato	ethyl ester, p	olymer with			
	z, z -oxybis [echanoi]	(9CI) (CA	INDEA NAM	E /				
	CM 1							
	CRN 30674-80-7 CMF C7 H9 N O3				•			
		•						
H <sub>2</sub> (	<b>2</b> 0							
Mo-								
Me (	C-C-O-CH <sub>2</sub> -CH <sub>2</sub> -NCO							
	CM 2							
	CRN 111-46-6							
	CMF C4 H10 O3							
HO (	CH2-CH2-O-CH2-CH2-	OH .						
RN CN	83052-06-6 CAPLUS 2-Propenoic acid, 2- 2,2'-[1,2-ethanediy]	-methyl-, 2- lbis(oxy)]bi	isocyanato s[ethanol]	ethyl ester, p (9CI) (CA IN	oolymer with DEX NAME)			
	CM 1							
	CRN 30674-80-7			·				
	CMF C7 H9 N O3	•						
		•	•					
H <sub>2</sub> (	C 0 .							
_[					•			
Me-C-C-O-CH <sub>2</sub> -CH <sub>2</sub> -NCO								

CRN 112-27-6

 $HO-CH_2-CH_2-O-CH_2-CH_2-O-CH_2-CH_2-OH$ 

RN 83052-07-7 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester, polymer with 4,4'-(1-methylethylidene)bis[phenol] (9CI) (CA INDEX NAME)

CM 1

CRN 30674-80-7 CMF C7 H9 N O3

$$\begin{array}{c|c} {\rm H_2C} & {\rm O} \\ & \parallel & \parallel \\ {\rm Me-} & {\rm C-} & {\rm C-} & {\rm O-} & {\rm CH_2-} & {\rm CH_2-} & {\rm NCO} \end{array}$$

CM 2

CRN 80-05-7 CMF C15 H16 O2

RN 83052-08-8 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester, polymer with 1,2-ethanediamine (9CI) (CA INDEX NAME)

CM 1

CRN 30674-80-7 CMF C7 H9 N O3

CM 2

CRN 107-15-3 CMF C2 H8 N2

 $H_2N-CH_2-CH_2-NH_2$ 

RN 83052-55-5 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester, polymer with  $\alpha$ -(2-aminomethylethyl)- $\omega$ -(2-aminomethylethoxy)poly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

CRN 83052-54-4

CMF (C2 H4 O)n C6 H16 N2 O

CCI IDS, PMS

$$H_2N-CH_2-CH_2-O-CH_2-CH_2-CH_2-O-D-CH_2-CH_2-NH_2$$

2 (D1-Me)

CM 2

CRN 30674-80-7 CMF C7 H9 N O3

IT 83052-04-4

RL: TEM (Technical or engineered material use); USES (Uses) (adhesives, anaerobic, storage-stable compns. for)

RN 83052-04-4 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester, polymer with 2,2'-[oxybis(2,1-ethanediyloxy)]bis[ethanol] (9CI) (CA INDEX NAME)

CM 1

CRN 30674-80-7 CMF C7 H9 N O3

CM 2

CRN 112-60-7 CMF C8 H18 O5

L11 ANSWER 30 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1982:510538 CAPLUS

DN 97:110538

Inhibitor for polymerization of a 2-isocyanatoalkyl ester of an  $\alpha,\beta$ -ethylenically unsaturated carboxylic acid

IN Johnson, Mark R.

PA Dow Chemical Co., USA

SO U.S., 4 pp.

CODEN: USXXAM DT Patent LΑ English FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ----\_\_\_\_\_ -----\_\_\_\_\_\_ US 4338162 19820706 US 1980-216694 19801215 ΡI Α A1 CA 1982-406602 19820705 CA 1166598 19840501 DE 1982-3225247 19820706 DE 3225247 A1 19840112 DE 3225247 C2 · 19860710 JP 1982-117619 JP 59007147 Α 19840114 19820706 PRAI US 1980-216694 19801215 OS MARPAT 97:110538 AB Nitrogen oxides are effective in inhibiting the polymerization of 2-isocyanatoalkyl esters of  $\alpha, \beta$ -ethylenically unsatd. carboxylic acids during distillation Thus, 121 g crude 2-isocyanatoethyl methacrylate [30674-80-7] was distilled under N containing 0.8% NO without the formation of a popcorn polymer. 30674-80-7 IT RL: USES (Uses) (polymerization inhibitors for, during distillation, nitrogen oxides as) RN30674-80-7 CAPLUS CN 2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester (CA INDEX NAME) H<sub>2</sub>C 0  $\parallel \parallel$  $Me-C-C-O-CH_2-CH_2-NCO$ L11 ANSWER 31 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN 1968:505897 CAPLUS ANDN 69:105897 Betaines of unsaturated sulfonic acids, as antistatic agents TI PA . Farbenfabriken Bayer A.-G. SO Fr., 4 pp. CODEN: FRXXAK DTPatent T.A

French FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE \_\_\_\_\_\_ \_\_\_\_\_ FR 1966-87102 19661212 FR 1504983 19671208 ΡI DE DE 1518904 GB 1156630 GB 19661206 US 3505391 19700407 US 19651216 PRAI DE

The title compds., which are used as antistatic agents for polymers, are prepared by treating N,N-disubstituted acid hydrazides with aliphatic sultones at 20-150° in a polar organic solvent in the presence of a polymerization inhibitor. Thus, to a solution of 165 parts CH2:CMeCO2CH2CH2NH2 and 160 parts EtO2CCONHNMe2 in 1000 parts MeOH, a solution of 40 parts NaOH in 200 parts MeOH was added at room temperature. The mixture was stirred 6-8 hrs. at 30-50°, filtered, and the filtrate evaporated to dryness to give 220 parts CH2:CMeCO2CH2CH2NHCOCONHNMe2 (I), m. 90-2°. I (243 parts) was dissolved in 1500 parts MeCN, then 130 parts propane 1,3-sultone in 100 parts MeCN was added in the presence of 1 part phenothiazine, and the mixture stirred 12-16 hrs. at room temperature and

hrs. at 80° to give 290 parts CH2:CMeCO2RNR1COCONHN+Me2CH2CH2SO3-(II, R = CH2CH2, R1 = H), m. 115-58° (decomposition). The following II were also prepared (R, R1, and m.p. given): m-C6H4, H, 199-204° (decomposition); p-C6H4, H, 209-11° (decomposition); CH2CH2, Me,

24

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IT
     19070-66-7P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation of)
RN
     19070-66-7 CAPLUS
     Hydrazinium, 1,1-dimethyl-2-[[[2-(2-methyl-1-oxo-2-
CN
     propenyl)ethyl]amino]oxoacetyl]-1-(3-sulfopropyl)-, inner salt (9CI) (CA
     INDEX NAME)
                            O CH<sub>2</sub>
         Ö
   {\tt NH-C-C-NH-CH_2-CH_2-O-C-C-Me}
Me - N^{+} (CH_2)_3 - SO_3
   Me
L11 ANSWER 32 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN
ΑN
     1960:11126 CAPLUS
DN
     54:11126
OREF 54:2214b-d
     Purification of ethylenic compounds
     Boettner, Fred E.
PA
     Rohm & Haas Co.
DT
     Patent
LA
     Unavailable
FAN.CNT 1
     PATENT NO.
                         KIND
                                DATE
                                            APPLICATION NO.
                                                                   DATE
                                            -----
     _____
                                ------
                                                                   -----
PΙ
                                19580902
                                           US 1956-628958
                                                                   19561218
     Increased yields on distillation of pure polymerizable olefins were obtained
AB
     when the olefins were recovered from mixts. with 6-aromatically
     substituted fulvenes. Intense colors of the inhibitors facilitated
     assurance of their complete removal. As examples were given the following
     monomers, distillation recovery in %, fulvene 6,6-substituents, % inhibitor: Me
     methacrylate (I), 99+, Ph, Ph, 0.1; I, 99+, naphthyl, Ph, 0.2;
     β-propoxyethyl acrylate, 86, ClC6H4, ClC6H4, 0.22; 2-ethylhexyl
     methacrylate, 57, p-ClC6H4, p-ClC6H4, 0.2; cetyl methacrylate, 88, Ph, Ph,
     -; β-butoxyethyl methacrylate, 83.3, p-ClC6H4, Me, 0.33;
     methacrylamide, 80.9, Ph, Me, 0.25; methacrylonitrile, 75, Ph, Me, 0.25;
     1,3-butylene dimethacrylate, -, p-ClC6H4, p-ClC6H4, 0.3. These
     6-substituted fulvenes were also introduced to increase yields in the
     synthesis as well as the purification of the following monomers:
     isocyanatoethyl methacrylate, N-methyl maleimide, N-dodecyl maleimide, and
     acrylyl chloride.
IT
     30674-80-7
        (Derived from data in the 6th Collective Formula Index (1957-1961))
     30674-80-7 CAPLUS
RN
     2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester (CA INDEX NAME)
CN
 H<sub>2</sub>C O
```

152-4°.